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LESSONS IN HARMONY

(SECOND FORTY)

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The Second Forty Lessons in Harmony

BY

ARTHUR OLAF ANDERSEN

BOSTON

C. C. BIRCHARD & COMPANY

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Warrensburg

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INDEX OF LESSONS

Lesson		Page
I.	Second V and Second V_7 (V of V) 2V, $2V_7$	1
II.	Second V_9. Major and Minor. Root Position and Inversions, $2V_9$	4
III.	Other Second Dominant Formations. 2VII, $2VII_7$, $2VII_{7^0}$	6
IV.	Italian Sixth Chord	8
V.	French Sixth Chord	9
VI.	German Sixth Chord	11
VII.	Neapolitan Sixth Chord	13
VIII.	Other Sixth Chords	16
IX.	The Sixth Chords of the 2V Formations	20
X.	Transitions: The Dominant Formations of II in Major	23
XI.	Transitions: The Dominant Formations of IV in Major	25
XII.	Transitions: The Dominant Formations of IV in Minor	27
XIII.	Transitions: The Dominant Formations of VI in Major	29
XIV.	Transitions: The Dominant Formations of VI in Minor	31
XV.	Transitions: The Dominant Formations of III in Major	34
XVI.	Transitions: The Dominant Formations of III in Minor	36
XVII.	Transitions: The Dominant Formations of the Subtonic	38
XVIII.	Transitions: The Relative Sixths to the Various V Formations	41
XIX.	The Freer Uses of the VII_{7^0} Chords	45
XX.	The Dominant Eleventh and Thirteenth. The II_9 and IV_9	49

79229

Lesson		Page
XXI.	The Milder Major Mode: Subdominant Affectations	54
XXII.	The Milder Major Mode: Supertonic Affectations	56
XXIII.	The Milder Major Mode: Submediant and Leading-tone Affectations	58
XXIV.	The Transitional Relationship of Other Triads	61
XXV.	Modulation: Subdominant Formations in Major	64
XXVI.	Modulation: Subdominant Formations in Minor	68
XXVII.	Modulation to the Major Dominant Key	69
	Modulation to the Minor Dominant Key	71
XXVIII.	Modulation to the Major Subdominant Key	73
	Modulation to the Minor Subdominant Key	75
XXIX.	Modulation to the Minor Submediant Key	76
	Modulation to the Major Submediant Key	78
XXX.	Modulation to the Minor Supertonic, the Major and Minor Mediant Keys	79
XXXI.	Modulations to the Flatted Mediant and the Flatted Submediant Keys	81
XXXII.	Modulations to the Major Supertonic and the Subtonic Keys	82
XXXIII.	Modulation Continued	83
XXXIV.	Various Scales	88
XXXV.	Suspensions	92
XXXVI.	The Ornamental Resolution to the Suspension. The Anticipation	97
XXXVII.	Appoggiaturas	98
XXXVIII.	Passing Notes. Passing Chords. Pedal Point	101
XXXIX.	Changing Notes. Surrounding Notes	105
XL.	Auxiliaries	107

THE
SECOND FORTY LESSONS IN HARMONY

This series begins with the dominant formations of the dominant and carries the student through the augmented sixth chords, transitions, modulation, and ornamentation. These lessons are designed to prepare the pupil for original work, experimentation, analysis, and, finally, for counterpoint and composition.

The work in analysis should begin with the early sonatas of Beethoven and continue through the later works of this master technician. After these, the compositions of Schumann, MacDowell, Grieg, Tschaikowsky, Franck, Strauss and d'Indy should be carefully studied from the harmonic viewpoint. These works will give an ever-broadening outlook upon the continual transformations of musical art. In these days, when musical evolution is progressing so rapidly, we must be constantly alert to the newer developments. With an open and unprejudiced mind we must absorb, endeavor to understand, reject or accept, according to our human and æsthetic sensibilities, all that is offered.

These are the days of the specialist. We find new methods of chord-structure, new scales formed from the harmonic series, as in Scriabine's Sixth Sonata, combined tonalities, etc., etc., each thing being brought forward by a deep thinker and experimentalist and each of decided value to and consideration by the serious-minded student.

It is not the object of these lessons to discriminate between the good and bad of these modern composers. It is, however, the object of the author to place before the student enough general and authentic knowledge of harmony to enable him to find himself in this maze of newer developments, to encourage him in his work, and urge him onward in the greatest medium of the expression of all emotions: Music.

THE
SECOND FORTY LESSONS IN HARMONY

Lesson I

The Second Dominant Triad (2V)

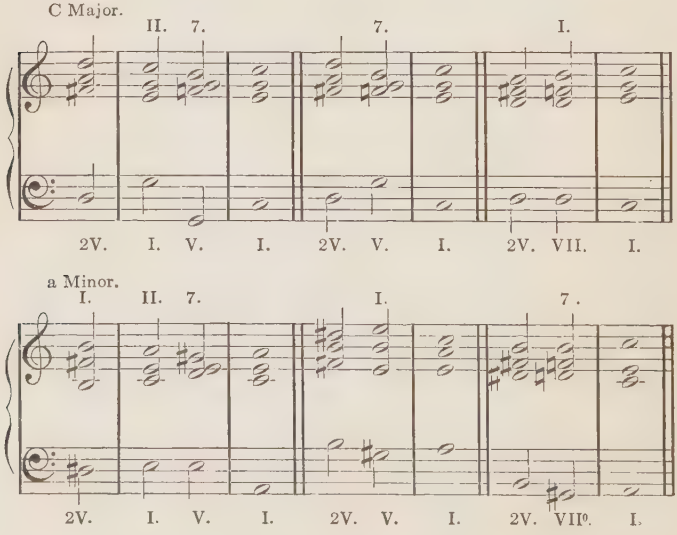
When there is a momentary change of feeling, or shifting, of tonic to a triad other than the original tonic, the progression is called a *transition*. Such a progression does not actually establish a new key as would a longer and more definite progression of chords relative to the new tonic. It simply states a relative key color temporarily, returning immediately to chords of the original key relationship.

Transitions add vividly to the strength and definition of the original chords, giving freshness and life to otherwise placid harmonization.

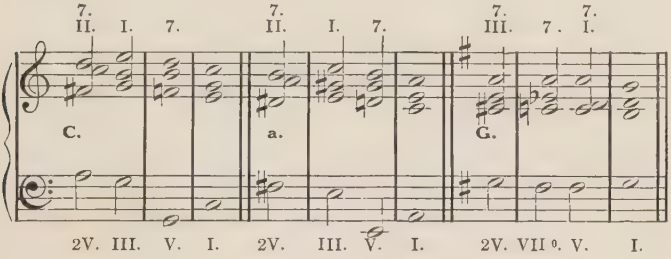
The most commonly used transitions are those relative to the dominant, in relationship of dominant of the dominant. These we call the second dominants. The V of "C" major is g, b, d. This is a major triad, and consequently a major key is considered with this chord as its momentary tonic. The dominant of "G" major is d, f♯, a. This we call the dominant of the dominant, or the second dominant (V of V, or 2V).

In "C" major this chord would be the supertonic with raised third, and since the supertonic triad is a subdominant formation, we also consider the 2V triad as such and treat it harmonically in the same manner.

It progresses, as does the II triad, to I^{II}, III^{I}, V and V_7, as well as to VII, VII_7 and VII_{7o}.

It will be noted that the dominant triad is always major in both modes. In major it is only necessary to raise the 3rd of the II triad to make it major, but in minor the II triad is diminished and it is necessary to raise both the 3rd and 5th to form the second dominant. The progressions of the 2V are the same as in major.

The Second Dominant Seventh ($2V_7$)

The $2V_7$ is formed by adding a third above the 2V triad. In "C" major this would be: d, f♯, a, c. Its regular resolution is to the V triad, following the pattern of the II_7 to V in every way.

The irregular progressions are to I^{II}, III, III^{I}, V_7, V_9, VII, VII_7, and VII_{7o}.

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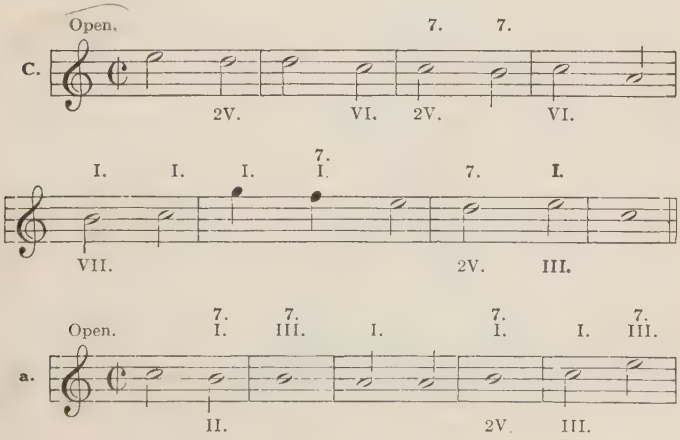
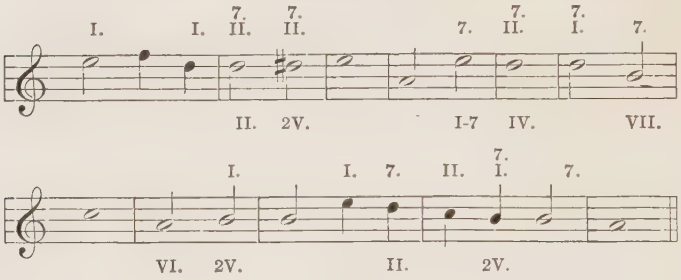
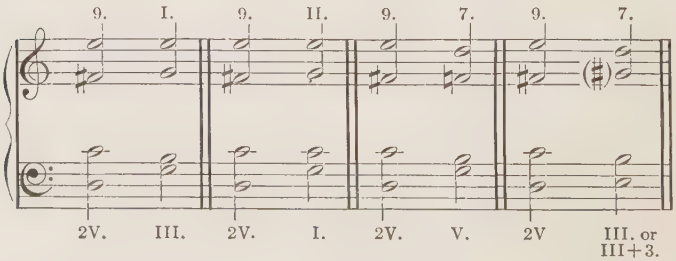
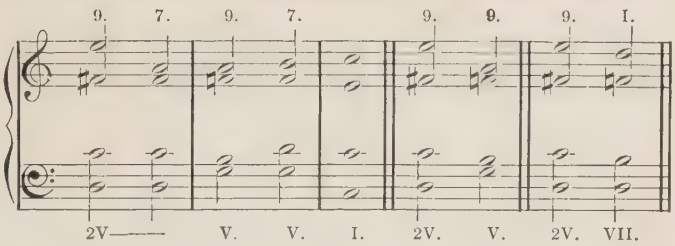




Lesson II

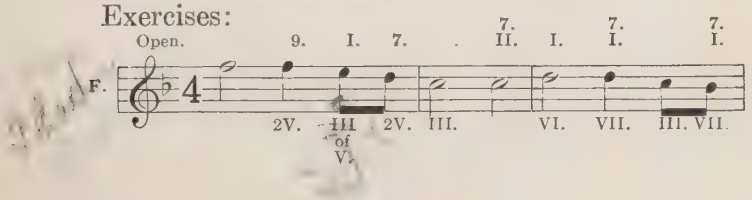
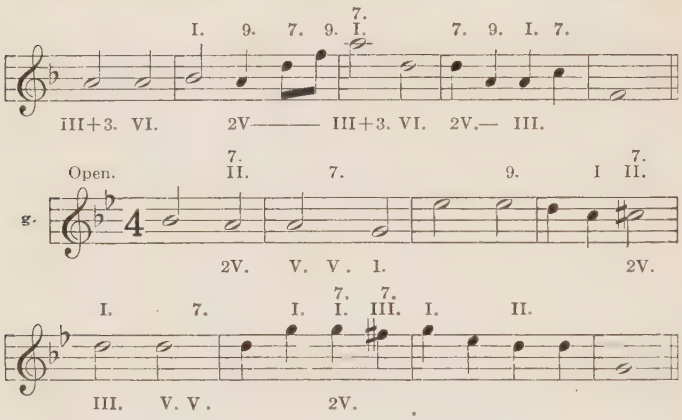
The Second Dominant Ninth ($2V_9$)

The second dominant ninth is formed by adding a third above the $2V_7$. In major the $2V_9$ is a major chord; in minor it is a minor ninth. The same rules governing the V_9 as to note omission and inversions, apply. The regular resolution is to the V triad.

The irregular progressions are to I^{II}, III, III^{I}, III_7, V_7, V_9, 2V, $2V_7$. Occasionally the progression to the major mediant, III^{+3}, or to the III_7 with raised 3rd (III_{7}^{+3}) is found. Such a progression is sometimes called the Phrygian Cadence. Other possible progressions are to VII, VII_7, VII_{7o}, II, II_7, II_{7-5}.



In the works of the modern or ultra-modern composers, progressions are found which are very difficult of harmonic rule-analysis. Such progressions seem to, and do, break the natural laws of regular and irregular resolutions, but are often very expressive and beautiful even though they contain elements of strictly incorrect writing such as inharmonic progressions, etc. Still, they are a means to an end, and, as such, they should be given due consideration and not condemned. The student is warned, however, not to join the ranks of these "color temperamentalists" until a sound foundation has been laid upon solid ground; in other words, until he can knowingly infringe upon the accepted standards and traditions of sane and correct harmonization. He will, then, if his fancy desires, write with a much greater versatility and strength than otherwise, for he will have the backing of justification through knowledge to guide him and to temper his efforts.

Exercises:

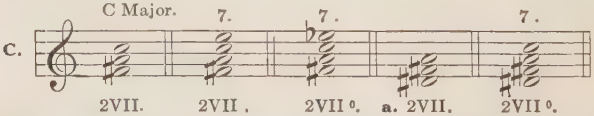


Lesson III

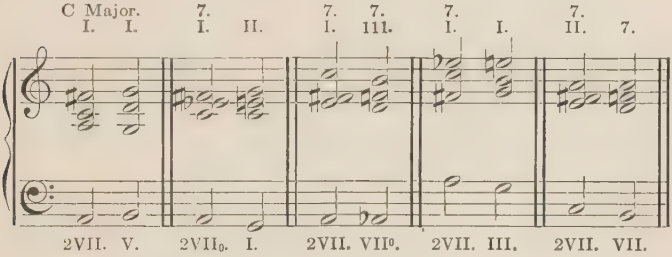
Other Second Dominant Formations

(2VII, $2VII_7$, $2VII_{7o}$)

Other second dominant formations, or derivatives, result when the roots of the $2V_7$, $2V_9$, and $2V_{-9}$ are omitted. The resulting chords will be the diminished triad of the dominant, called the second diminished triad (2VII); the leading-tone seventh of the dominant, called the second leading-tone seventh; and the diminished seventh of the dominant, called the second diminished seventh.



The 2VII, as is the case with all diminished triads, should be written with the 3rd in the bass.

These chords are all subdominant formations and may progress regularly to the V, and irregularly to I_{II}, III_{I}, V_{7}, V_{9}, VII, VII_{7}, VII_{7o}.

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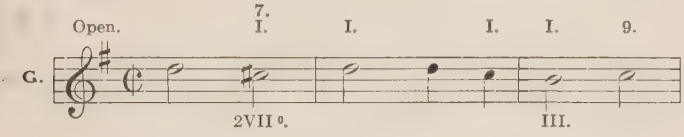
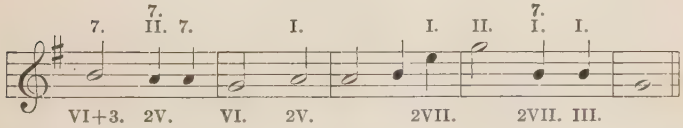
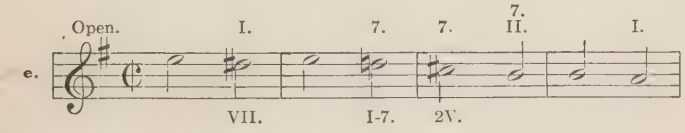
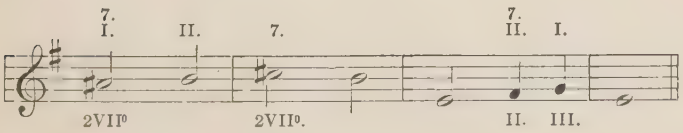






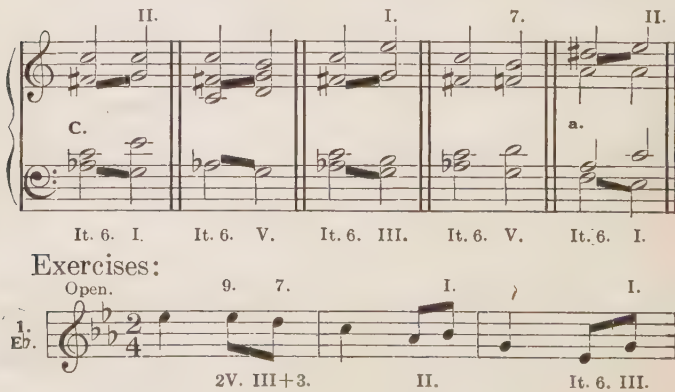


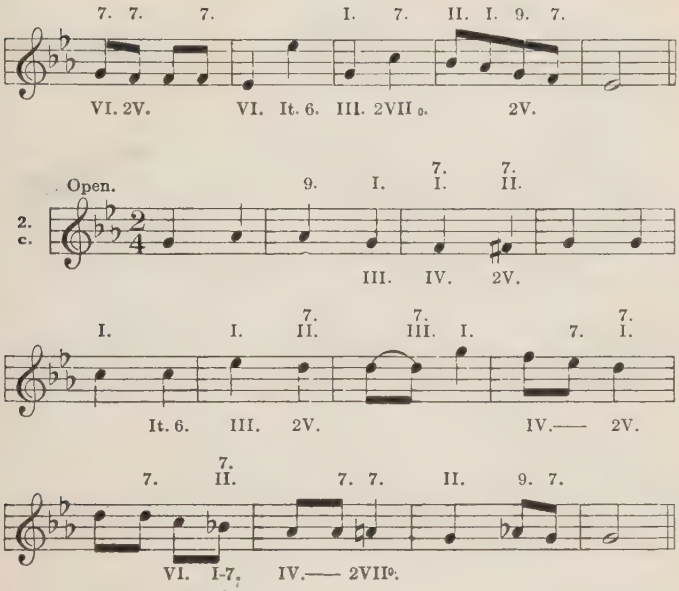
Lesson IV

The Italian Sixth Chord (It. 6)

This is the 2VII triad with lowered 3rd: f♯, a♭, c in C major. The lowered third should be placed in the bass and the fifth doubled. In this position an augmented 6th interval will result between the bass note and the raised root, a♭ to f♯, and consequently the name augmented 6th chord results. It is possible, though not at all certain, that this chord was first discovered and used by the early writers of the Italian school and so received its name, Italian 6th.

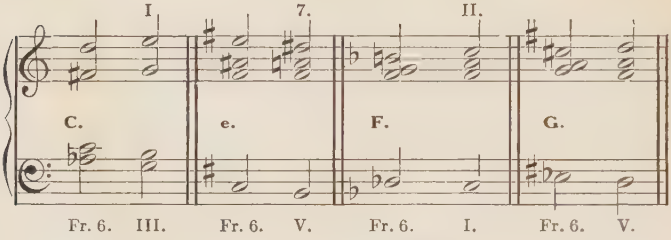
This chord is a derivative of the second dominant formations and consequently is subdominant in character. Its natural progression is to the V, but it may also progress to I^{II}, III^{I}, and V_7. In progressing, the interval of the augmented sixth should expand to the octave except in the case of the progression to the V_7, in which instance a chromatic change is necessary.



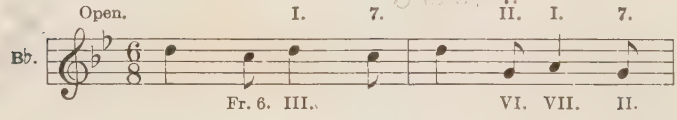


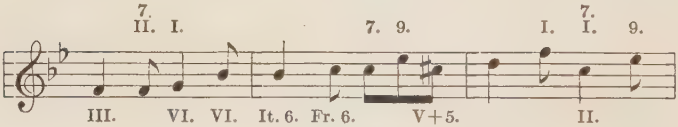
Lesson V

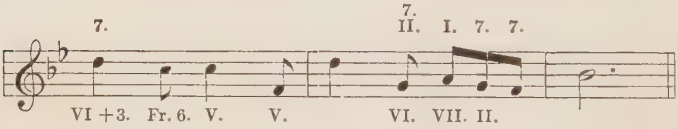
The French Sixth Chord (Fr. 6)

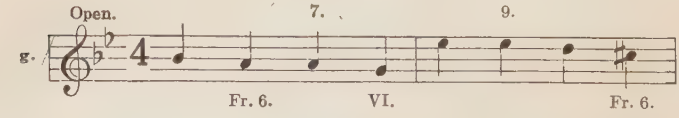
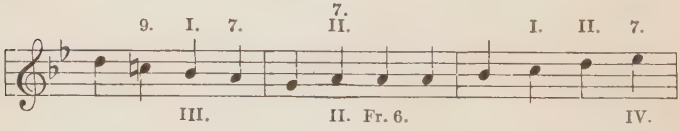
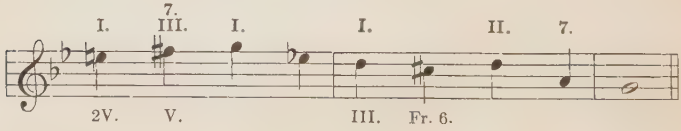
By lowering the fifth of the $2V_7$ the French Sixth chord results: d, f♯, a♭, c. Should be written with lowered fifth in the bass. The resulting augmented sixth should expand to the octave in the resolutions, except when progressing to the V_7 as was the case with the Italian Sixth chord. The chords of resolution are the same as those of the Italian Sixth.

I
7.
II.
C.
e.
F.
G.
Fr. 6. III.
Fr. 6. V.
Fr. 6. I.
Fr. 6. V.

Exercises:


Open.
I.
7.
7.
II. I. 7.
B♭.
Fr. 6. III.
VI. VII. II.


7.
II. I.
7. 9.
7.
I. I. 9.
III. VI. VI. It. 6. Fr. 6. V+5. II.


7.
7.
II. I. 7. 7.
VI +3. Fr. 6. V. V.
VI. VII. II.


Open.
7.
9.
g.
Fr. 6.
VI.
Fr. 6.

9. I. 7.
7.
II.
I. II. 7.
III.
II. Fr. 6.
IV.

I.
7.
III.
I.
I.
II.
7.
2V.
V.
III. Fr. 6.

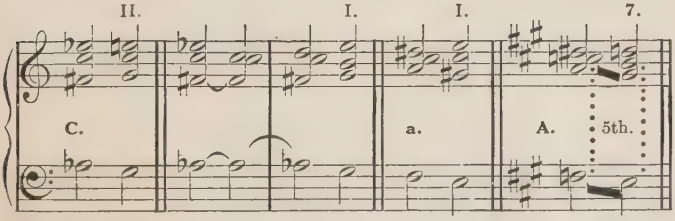
Lesson VI

The German Sixth Chord (G. 6)

This is the $2VII_{7o}$ with lowered 3rd: f♯, a♭, c, e♭. Use lowered third in the bass. Same progressions as for other sixth chords. The progressions into the V or V_7 will result in parallel fifths which are not objectionable between an inner and an outer voice.

All three of these sixth chords may be used in succession in any desired order, the final one progressing to a suitable chord of resolution.

When the 7th of the German 6th chord is in the melody, in order to avoid parallel fifths between two outer voices, the 7th will have to ascend, or skip up, to the root of the V or V_7 in those progressions, thus omitting the 5th of the V and V_7.



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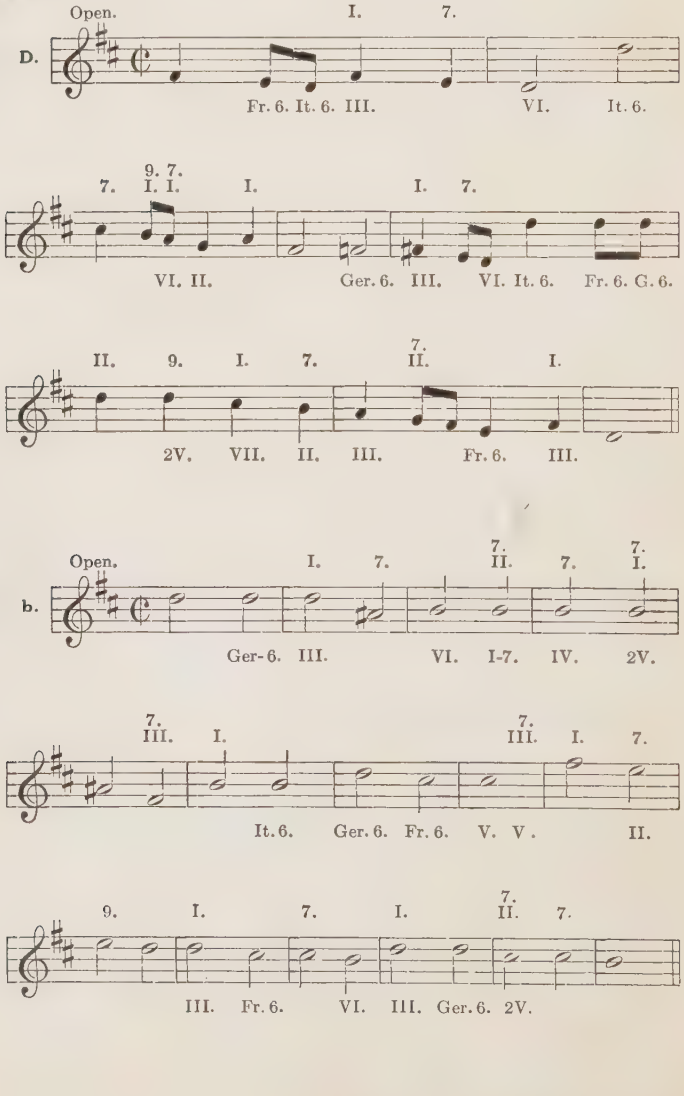
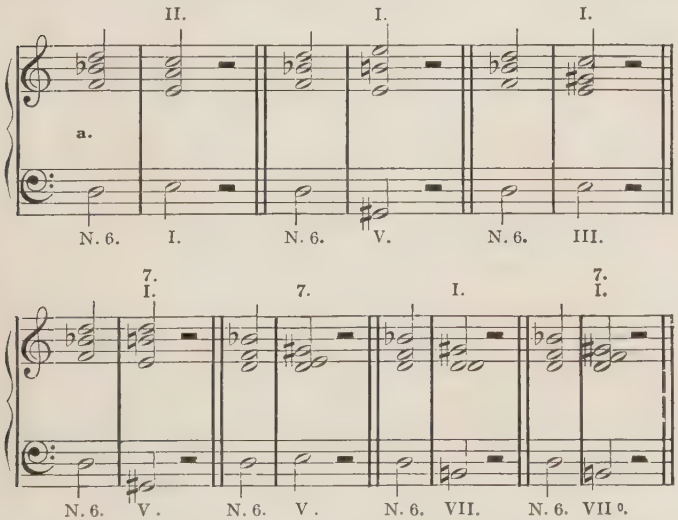

Open.
I.
7.
D.
Fr. 6. It. 6. III.
VI.
It. 6.
7.
9. 7.
I. I.
I.
I.
7.
VI. II.
Ger. 6. III.
VI. It. 6.
Fr. 6. G. 6.
II.
9.
I.
7.
7.
II.
I.
2V.
VII.
II.
III.
Fr. 6.
III.
Open.
I.
7.
7.
II.
7.
I.
b.
Ger-6. III.
VI.
I-7.
IV.
2V.
7.
III.
I.
7.
III.
I.
7.
It. 6.
Ger. 6.
Fr. 6.
V.
V.
II.
9.
I.
7.
I.
7.
II.
7.
III.
Fr. 6.
VI.
III.
Ger. 6.
2V.

Lesson VII

The Neapolitan Sixth Chord

Formation: The Neapolitan Sixth chord is the II triad in minor with lowered root, or the II triad in major with lowered root and fifth. It is a subdominant formation and should be written with third in the bass and full chord above.

This chord is particularly effective in minor—much more so than in major—and especially in the cadence. It precedes the I^{II}, III^{I}, V, V_7, VII, VII_{7o}.

When the Neapolitan 6th chord precedes the Authentic cadence, the progression is sometimes called the Pathetic Cadence:

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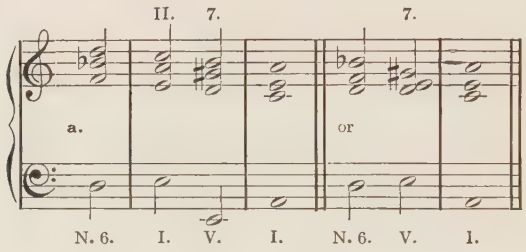
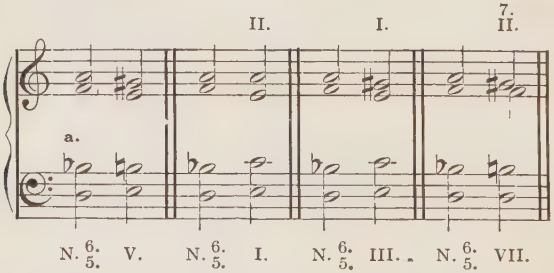
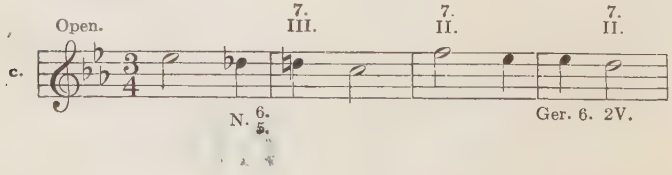
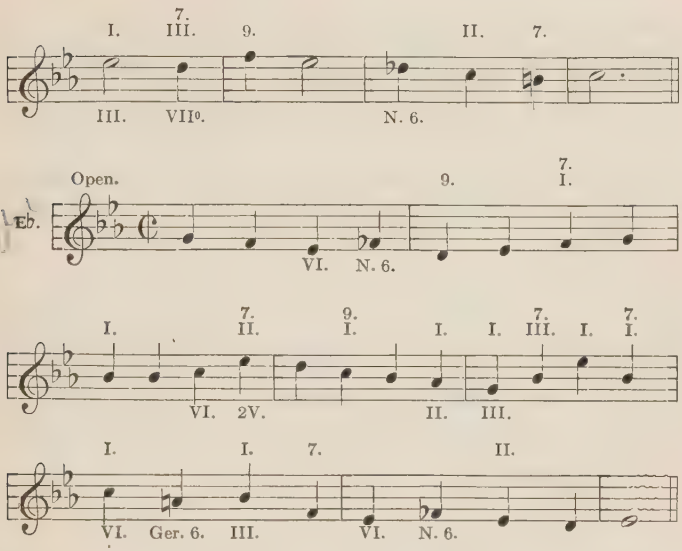


The Neapolitan 6th chord is occasionally used in its $\frac{6}{5}$ position; that is, with 3rd added above, forming a seventh chord. In "a" minor this would read: b♭, d, f, a. The $\frac{6}{5}$ position (7^{I}) calls for the third in the bass and the progressions are the same as in its triad formation.

The N^{6}_{5}, being a major 7th chord, is very much harsher than the plain N.6, and when possible a diatonic or oblique preparation is advisable.

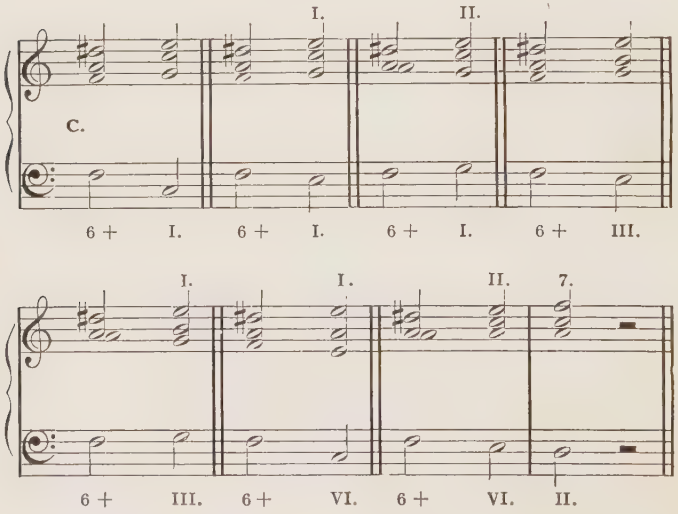
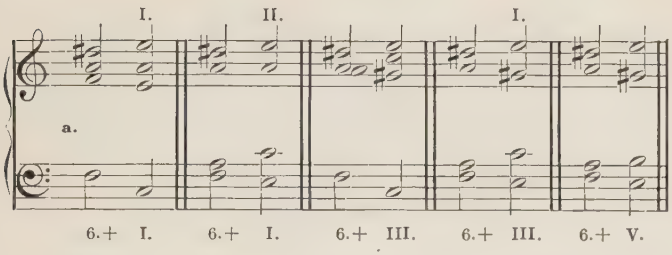
Exercises:



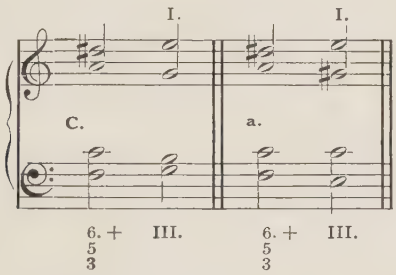
Lesson VIII

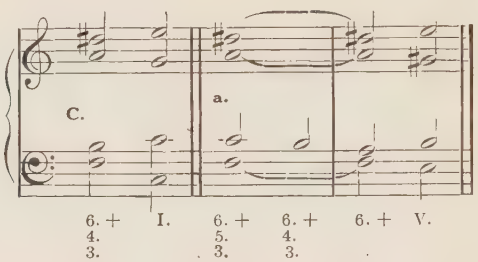
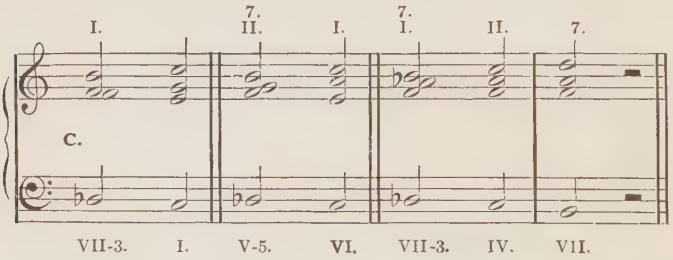
Other Sixth Chords

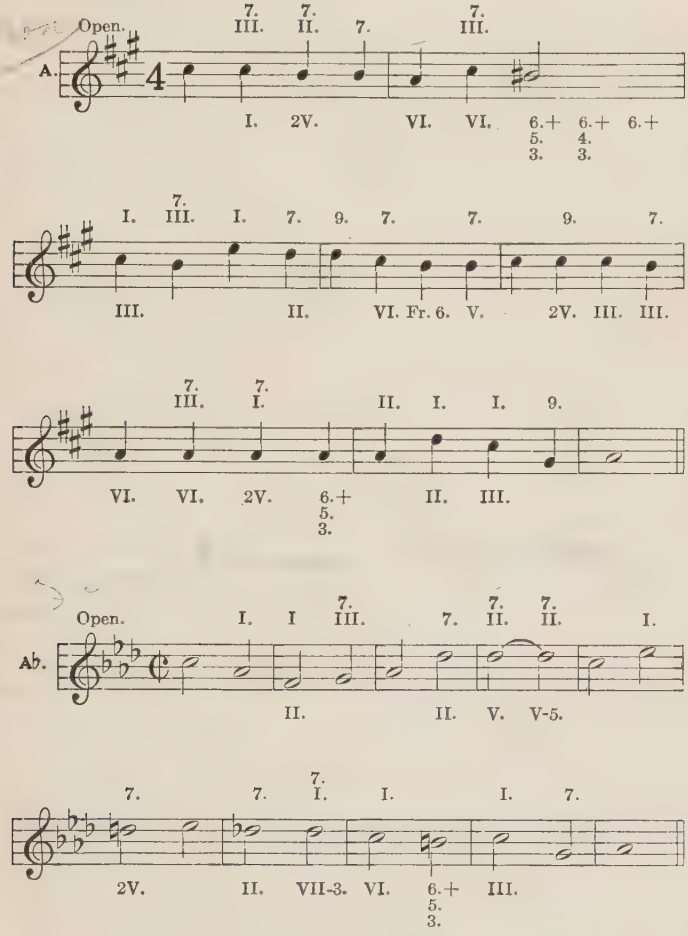
As will be seen later in transitions, other 6th chords are but varieties of the Italian, French, and German Sixths in different juxtapositions in the scale. It is, however, interesting and worth while to consider these chords from both viewpoints, so they are herewith given in their relationship to the given scale.

Formation: The plain augmented 6th, on the II of the Major Scale, is formed by raising the root one

half step chromatically, forming: d♯, f, a. This chord should be written in the first inversion with either 3rd or 5th doubled. Its natural progressions are to chords containing a note one half step above the raised tone. Consequently it will progress to I, I^{I}, I^{II}, III, III^{I}, VI^{I} and VI^{II}.

In minor the plain augmented 6th chord is formed on the fourth degree of the scale with raised root. In "a" minor this would read d♯, f, a, the same as on the second degree of "C" major. The progressions are to chords containing a note one half step above the raised tone: I^{I}, I^{II}, III, III^{I}, V. The 3rd or 5th of the augmented 6th chord should be doubled.

By adding a third above the plain augmented 6th chord the $\frac{6+}{5}{3}$ chord results: d♯, f, a, c. This chord should be written in the first inversion and progresses to the same chords as the plain 6+ chord.



By adding a third below the plain augmented 6th chord the $\frac{6+}{4}{3}$ position results: b, d♯, f, a. This chord should be written in the second inversion. The progressions are the same as the 6+ or $\frac{6+}{5}{3}$ chords. All three of these chords may be used in succession in any desired order, the final chord progressing to a suitable resolution.

The VII triad with lowered 3rd, b, d♭, f, is also occasionally found as an augmented sixth formation. The lowered 3rd is placed in the bass and the expansion to the octave in the resulting chord is the usual order for its progression. The 5th should be doubled and the three chords of resolution are I, IV^{II}, and VI^{I}. This chord is also found in the $^{6+}_{5}$ and the $^{6+}_{4\ 3}$ positions being respectively VII-3, $VII_{7}{}^{0}{}_{3}$ and V_{7-5}.

No great use will be found for these last three augmented 6th chords, although their value is unquestionable as a possible effect in composition. The thorough student of Harmony is advised to experiment with these chords and become acquainted as far as possible with their use.

Exercises:

Open.
A.
7. III.
7. II.
7.
7. III.
I. 2V. VI. VI. 6.+ 5. 3. 6.+ 4. 3. 6.+
I. 7. III. I. 7. 9. 7. 7. 9. 7.
III. II. VI. Fr. 6. V. 2V. III. III.
7. III.
7. I.
II. I. I. 9.
VI. VI. 2V. 6.+ 5. 3. II. III.
Open.
Ab.
I. I 7. III. 7. 7. II. 7. II. I.
II. II. V. V-5.
7. 7. 7. I. I. I. 7.
2V. II. VII-3. VI. 6.+ 5. 3. III.

Lesson IX

The Sixth Chords of the Dominant

In the Second Dominant formations the fifth degree of the scale is temporarily considered a tonic for the 2ndV. Forming the Italian, French, and German 6th chords, as well as the Neapolitan 6ths from this new tonic, the following chords will result:

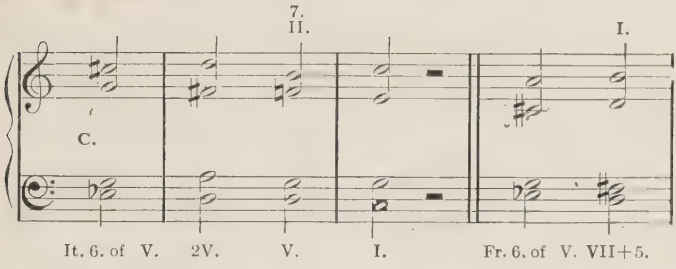
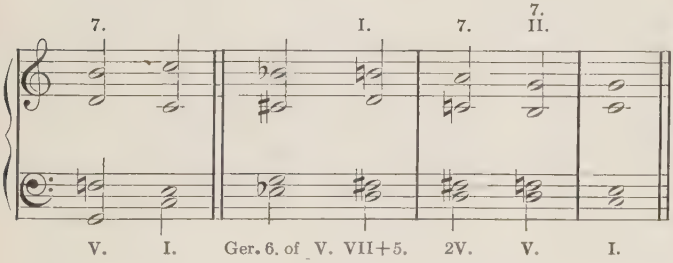
C Major: c♯, e♭, g; Italian 6th, resolving to V^{II}, VII^{I+5}, 2V, $2V_7$.

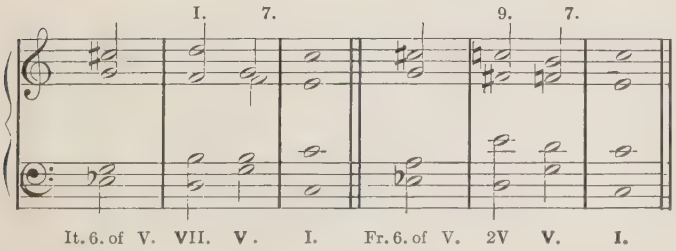
a, c♯, e♭, g; French 6th, resolving to V^{II}, VII^{I+5}, 2V, $2V_7$.

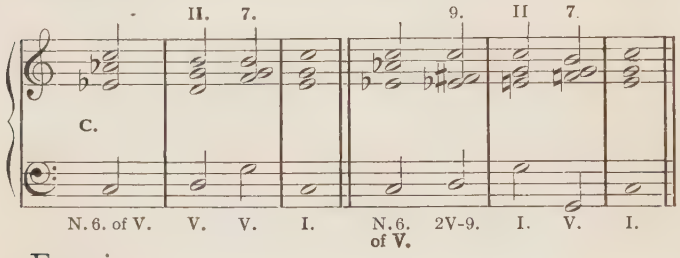
c♯, e♭, g, b♭; German 6th, resolving to V^{II}, VII^{I+5}, 2V, $2V_7$.

a♭, c, e♭; Neapolitan 6th, progressing to V^{II}, VII^{I+5}, 2V, $2V_7$.

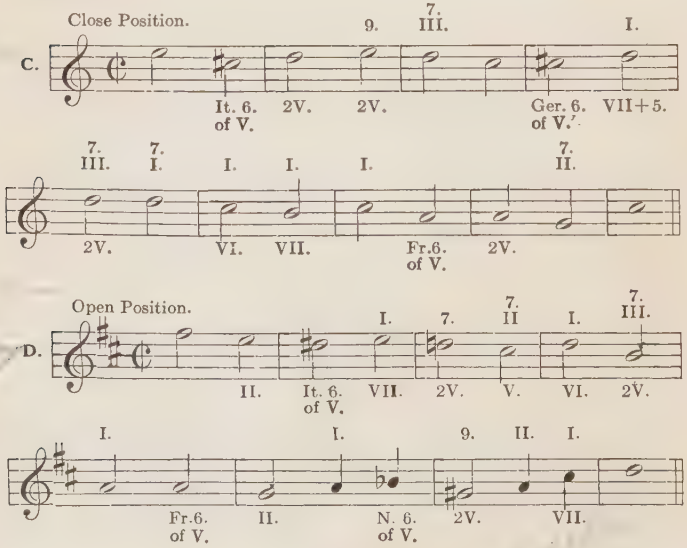
a♭, c, e♭, g; Neapolitan $\frac{6}{5}$, progressing to V^{II}, VII^{I+5}, 2V, $2V_7$.

These chords will progress in relatively the same manner as before, but care must be taken to return immediately to some dominant formation of the original key or else a modulation into the dominant key will result. The reason for this modulation's being so easily accomplished through these chords will be fully explained later under the chapter called *Modulation*.



Through a process of experimentation with these chords, the student will discover an unusual number of very interesting and attractive progressions which are not included under the above given and regular progressions. Among some of these so-called irregular progressions are: Italian 6th, or French 6th, or German 6th of V to VII^{I} or $2V_9$ or II, etc.

The Neapolitan 6th of the V in C major would be formed on the second degree of the V with lowered root and fifth. This would read a♭, c, e♭ in the scale of C major and it would progress to V^{II}, $2V_7$, $2V_9$, 2VII, $2VII_7$ or $2VII_{7o}$, as well as to other suitable chords which are more or less a matter of experimentation.



Exercises:



Lesson X

TRANSITIONS. THE DOMINANT FORMATIONS OF II

A transition, as in the case of the second dominants, is a temporary change of feeling of tonic without an actual change of key. Transitions result through forming the dominant chords relative to the various major and minor triads of both modes. The temporary change of tonic will be major or minor according to whether the triad used is major or minor. For instance, the supertonic triad in the C major scale is d, f, a. This is a minor triad and consequently the temporary change is to "d" minor. The dominant formations in "d" minor are: V, V_7, V_{-9}, VII, VII_{7^o}, and III^I.

V of II: a, c♯, e.

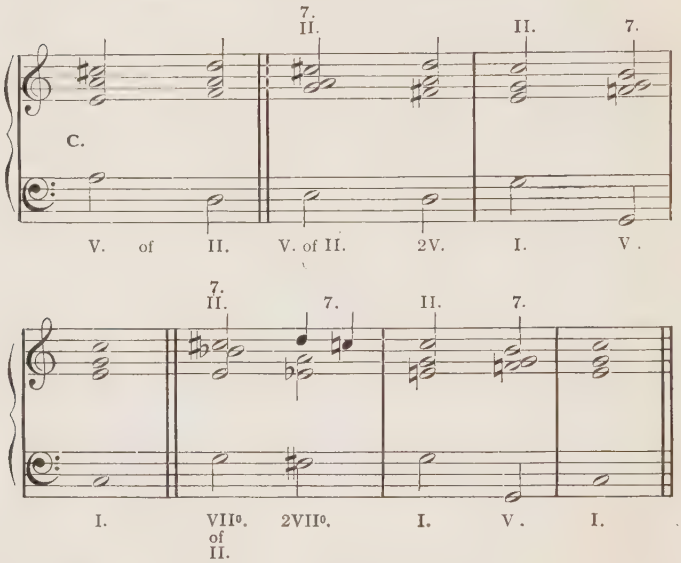
V_7 of II: a, c♯, e, g.

V_{-9} of II: a, c♯, e, g, b♭ (b♭ according to signature of "d").

VII of II: c♯, e, g.

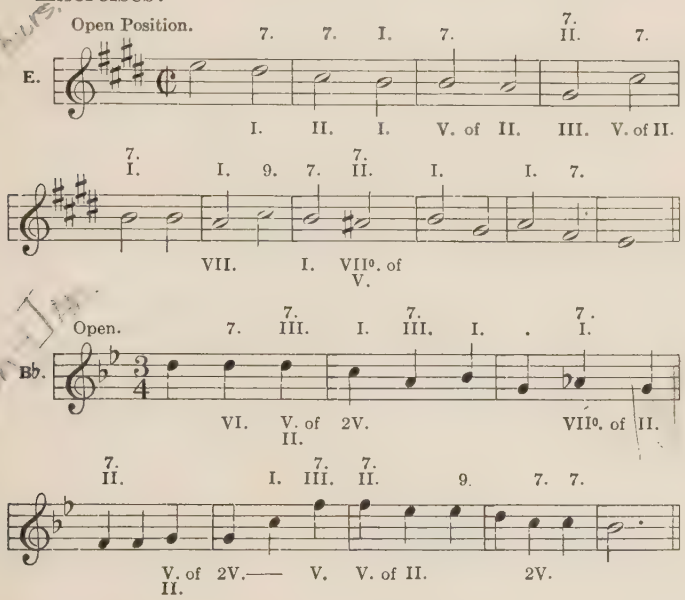
VII_{7^o} of II: c♯, e, g, b♭.

III^I of II: f, a, c♯ (written "a" in bass and full chord above).

The natural progression of each of these formations is directly to the II triad; but they may also progress to II_7, II-5, II_{7-5}, 2V, $2V_7$, $2V_9$, $2V_{-9}$, 2VII, $2VII_7$, $2VII_{7^o}$, and possibly to IV, IV_7, VI, VI_7, IV-3 ,IV_{7-3}, IV_{7-7}, IV^{-7}_{7-3}, VII.

These progressions all have their place in modern harmony and are particularly effective when properly used with due consideration for approach (voice leading), as well as resolution. As in all these transitional chords, experimentation must be practiced until a certain versatility and freedom of expression results.

There are no dominant formations of the supertonic in the minor mode for the simple reason that the II triad in minor is diminished and cannot act as a temporary tonic. A tonic triad must be either major or minor and consequently diminished and augmented triads have no real dominant formations unless chromatically altered. This will be taken up later in the further study of transitions.

Exercises:


Open Position.
E.
7. 7. I. 7. 7. II. 7.
I. II. I. V. of II. III. V. of II.
7. 7. 7.
I. I. 9. 7. II. I. I. 7.
VII. I. VII°. of V.
Open.
Bb.
7. 7. III. I. 7. III. I. 7. I.
VI. V. of II. 2V. VII°. of II.
7. 7. 7. 7.
II. I. III. II. 9. 7. 7.
V. of II. 2V.— V. V. of II. 2V.

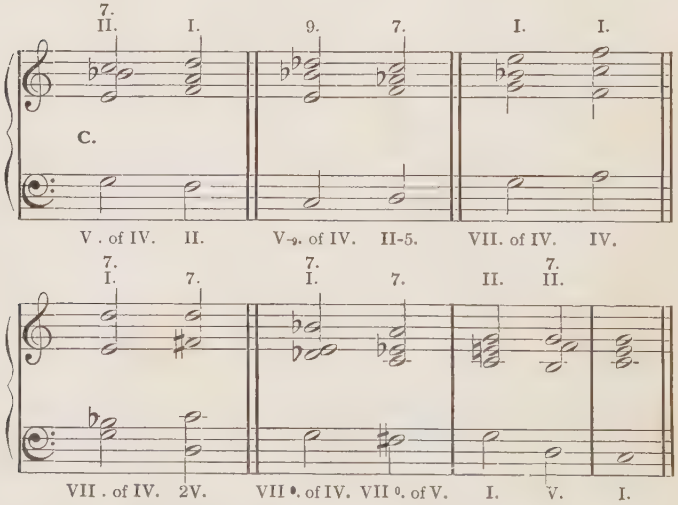
Lesson XI

Transitions: the Dominant Formations of IV In Major

There are always seven dominant formations for a major tonic and but five for a minor tonic. This is because the V_9 in major may be made minor, V_{-9}; and the VII_7, which is minor, can be contracted to diminished. Consequently the V formations of IV in "C" major are:

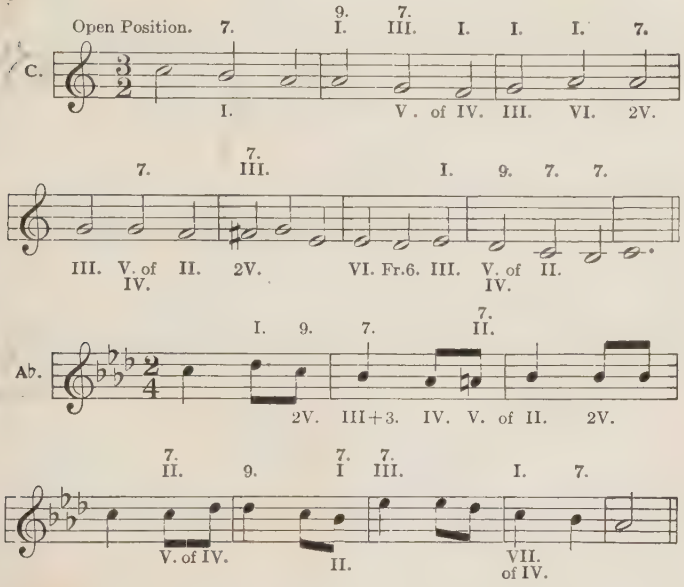
V of IV: c, e, g.
V_7 of IV: c, e, g, b♭.
V_9 of IV: c, e, g, b♭, d.
V_{-9} of IV: c, e, g, b♭, d♭.
VII of IV: e, g, b♭.
VII_7 of IV: e, g, b♭, d.
VII_7^0 of IV: e, g, b♭, d♭.

The natural progression of each of these chords is to IV, but irregular progressions to the following chords are possible: II, II_7, II-5, II_{7-5}, IV_7, IV_{7-3}, and all 2V formations as well as to V formations of II and VII-[1].



All these progressions may be followed by a cadence to the original tonic as in the last illustration.

Exercises:



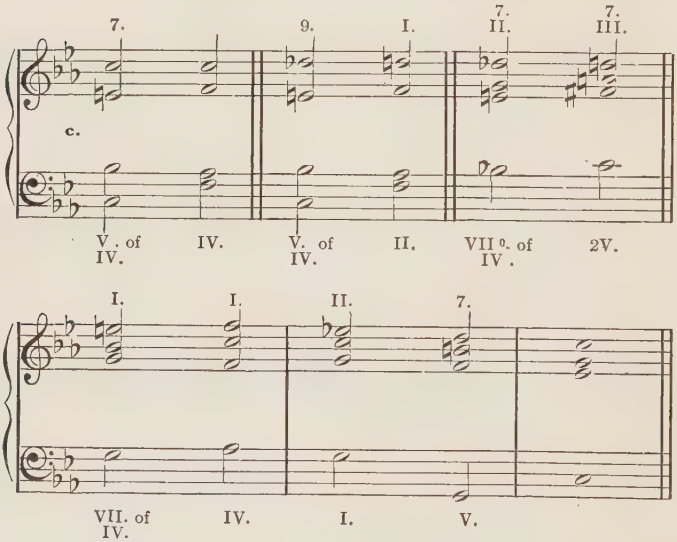
Lesson XII

Transitions: The Dominant Formations of IV in Minor

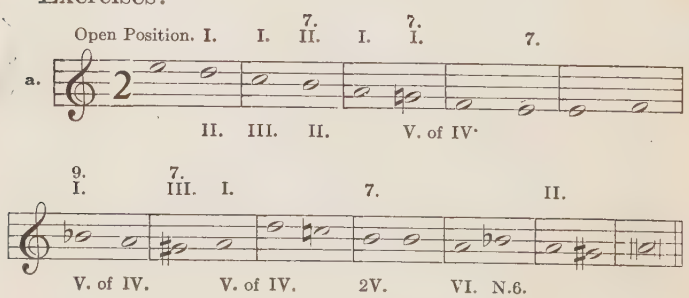
The dominant formations of IV in "c" minor are:

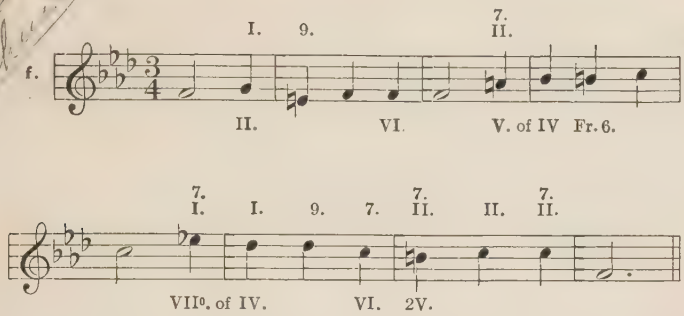
V of IV: c, e♮, g.
V_7 of IV: c, e♮, g, b♭.
V_9 of IV: c, e♮, g, b♭, d♭.
VII of IV: e♮, g, b♭.
VII_{7^0} of IV: e♮, g, b♭, d♭.

The natural progression of each is to IV, but each may also progress to chords of IV formation. Some of these are: II, II_7, IV_7, and the 2V formations, including the Italian, French, and German 6ths.



Exercises:



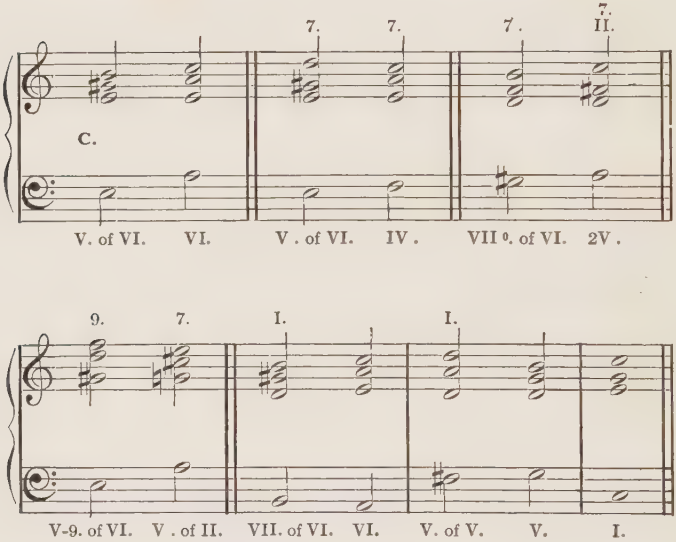


Lesson XIII

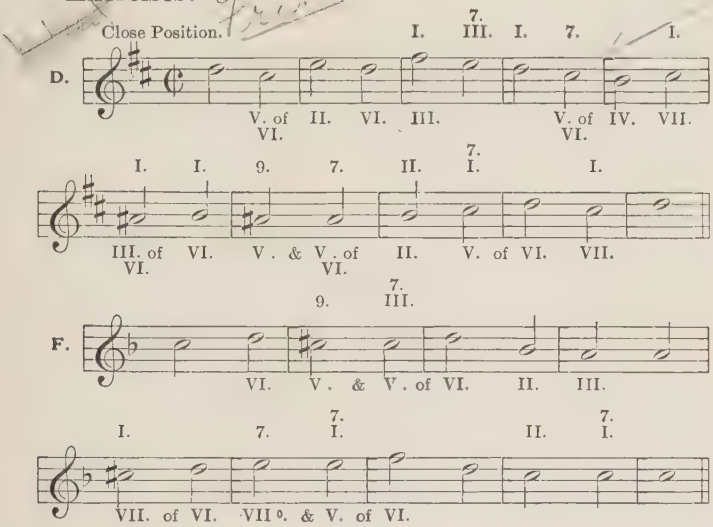
Transitions: Dominant Formations of the Submediant in Major

In "C" major the dominant formations of the submediant are:

V of VI: e, g♯, b.
V_7 of VI: e, g♯, b, d.
V_9 of VI: e, g♯, b, d, f.
VII of VI: g♯, b, d.
VII_{7^0} of VI: g♯, b, d, f.

These formations will all progress to VI in the regular resolution, but may also progress to chords of IV and I qualities, some of which are: IV, VI_7, V formations of II, V formations of V, and IV_7.

The number of possible progressions between the various dominant formations and suitable resolution chords is so great that it would be next to impossible to begin to record them in a work of this nature. The serious student of Theory will naturally spend a great deal of time in experimentation and he will find himself richly rewarded by a thorough investigation of the resources at hand. He will also enlarge his harmonic vocabulary to a very great extent, which will amply repay him for his research and trouble.

Exercises:


Close Position.
D.
I. 7. III. I. 7. I.
V. of VI. II. VI. III. V. of VI. IV. VII.
I. I. 9. 7. II. 7. I. I.
III. of VI. VI. V. & V. of VI. II. V. of VI. VII.
F.
9. 7. III.
VI. V. & V. of VI. II. III.
I. 7. 7. I. II. 7. I.
VII. of VI. VII 9. & V. of VI.

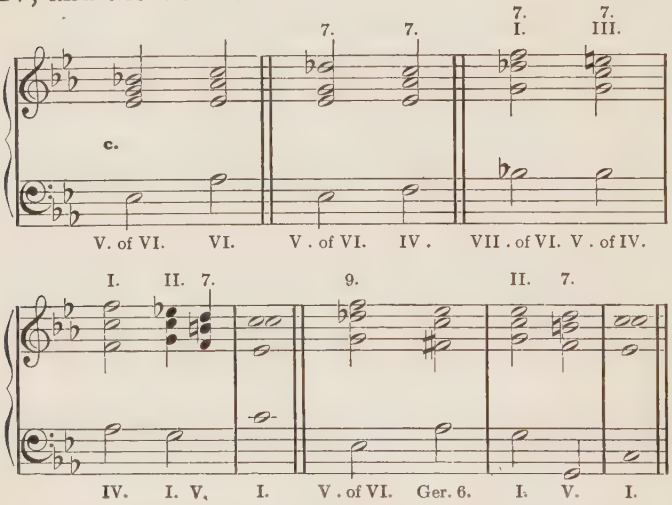
Lesson XIV

Transitions: Dominant Formations of the Submediant in Minor

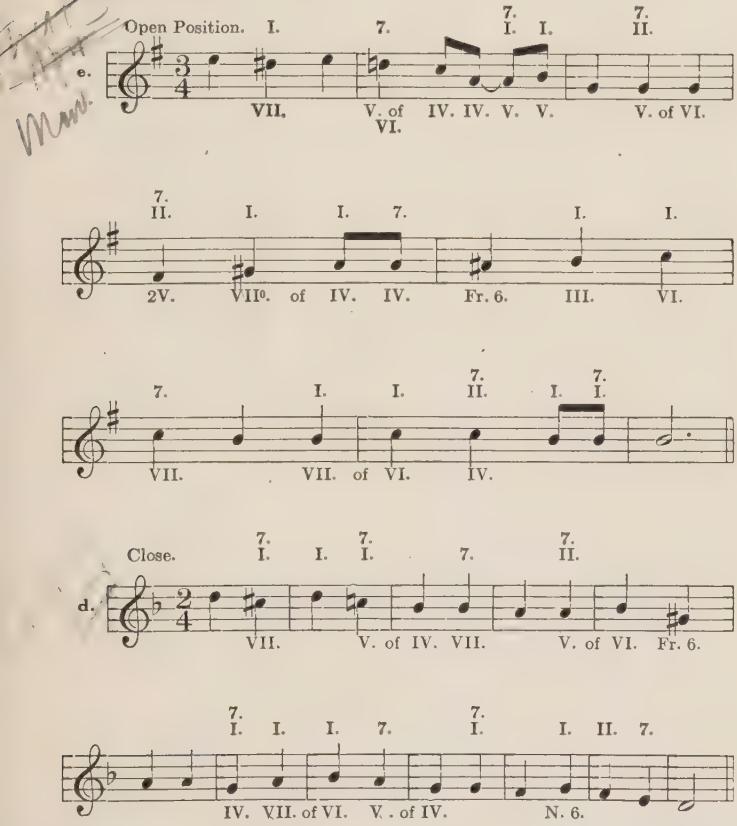
In "c" minor the dominant formations of the submediant are:

V of VI: e♭, g, b♭.
V_7 of VI: e♭, g, b♭, d♭.
V_9 of VI: e♭, g, b♭, d♭, f.
V_{-9} of VI: e♭, g, b♭, d♭, f♭.
VII of VI: g, b♭, d♭.
VII_7 of VI: g, b♭, d♭, f.
$VII_{7\flat}$ of VI: g, b♭, d♭, f♭.

The natural progression of each is to VI, but they

may also progress to IV, IV_7, VI_7, V formations of IV, and the German 6th.

It is, or should be, well understood that some of the progressions of the dominant formations are not as pleasing as others. The object is not to make pleasing progressions always, but to make possible progressions which are correct and useful. The virtue of chord-progression does not always lie in the beauty of sound, but may also be found in the strength of voice leading; and oftentimes a satisfactory sounding progression must be sacrificed to a rather harsh sounding effect in order to obtain a melodic leading in an inner part. This seeming arrogance of expression is entirely justifiable under the circumstances and tends toward a stronger and deeper thought interpretation of musical idiom.

Exercises:

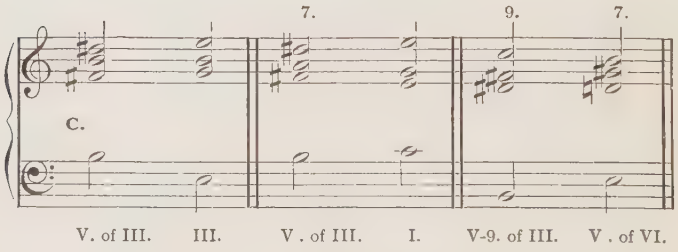
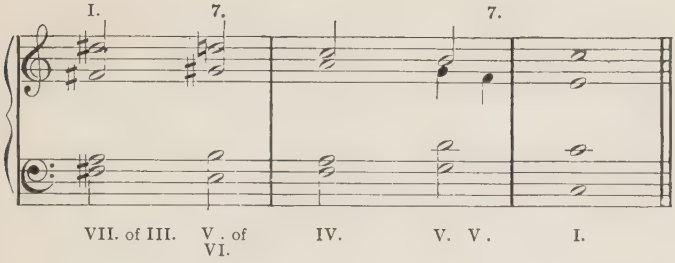

Open Position. I. 7. 7. I. I. 7. II.
e.
VII. V. of VI. IV. IV. V. V. V. of VI.
7. II. I. I. 7. I. I.
2V. VII°. of IV. IV. Fr. 6. III. VI.
7. I. I. 7. I. 7. II. I.
VII. VII. of VI. IV.
Close. 7. I. I. 7. I. 7. II.
d.
VII. V. of IV. VII. V. of VI. Fr. 6.
7. I. I. I. 7. 7. I. I. II. 7.
IV. VII. of VI. V. of IV. N. 6.

Lesson XV

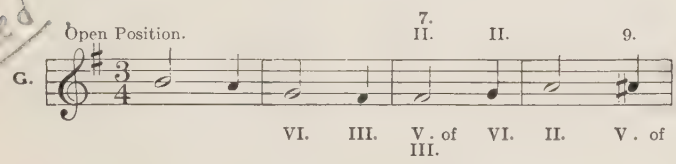
Transitions: The Dominant Formations of the Mediant in Major

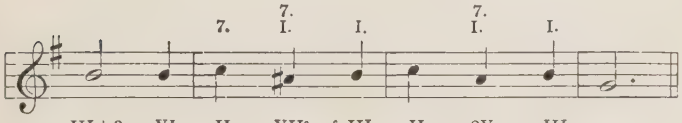
In "C" major the dominant formations of the mediant are:

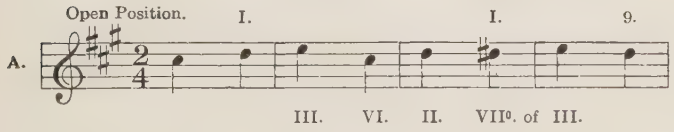
V of III: b, d♯, f♯.
V_7 of III: b, d♯, f♯, a.
V_9 of III: b, d♯, f♯, a, c.
VII of III: d♯, f♯, a.
VII_{7^0} of III: d♯, f♯, a, c.

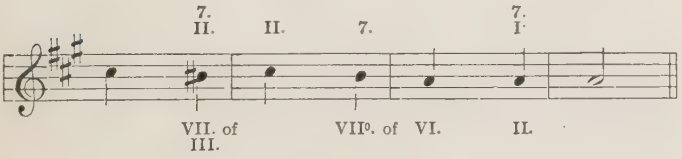
The natural progression of each is to the III triad, but these dominant formations may also progress irregularly to other chords of the scale and to other dominant formations. Some of these are: I, VI, V formations of VI, I^{11}, and III^{1}; also $V_{\frac{7}{6}}$.

I.
7.
7.
VII. of III.
V. of VI.
IV.
V.
V.
I.

Exercises:


Open Position.
7.
II.
II.
9.
G.
VI.
III.
V. of III.
VI.
II.
V. of


7.
I.
I.
7.
I.
I.
III+3.
VI.
II.
VII°. of III.
II.
2V.
III.


Open Position.
I.
I.
9.
A.
III.
VI.
II.
VII°. of III.


7.
II.
II.
7.
7.
I.
VII. of III.
VII°. of VI.
II.

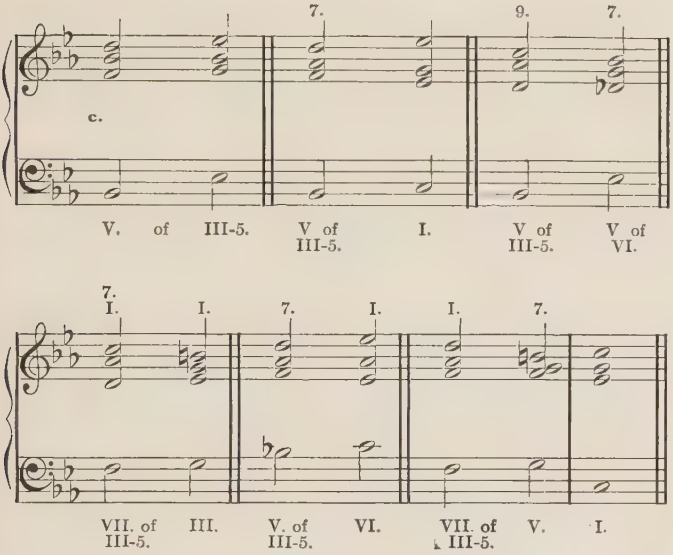
Lesson XVI

Transitions: The Dominant Formations of the Mediant in Minor

Both forms of the mediant may be used in the resolution of the dominant formations, but in the actual transition only the III with lowered fifth is considered. According to the minor scale formation, the mediant is an augmented triad and consequently is not a point of repose; but, as was the case with the uses of the chord in the triad formations, it may be used with lowered fifth and as such becomes a major triad. The dominant formations then are:

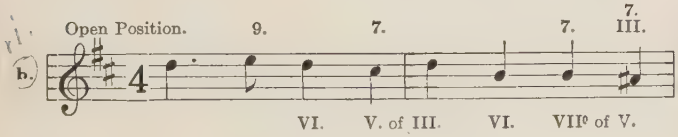
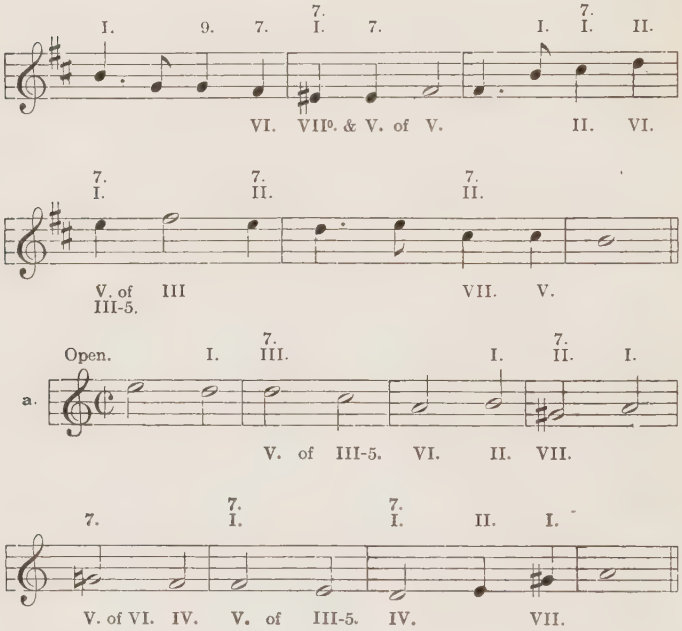
c minor: V of III-5 b♭, d, f.
V$_7$ of III-5 b♭, d, f, a♭.
V$_9$ of III-5 b♭, d, f, a♭, c.
V-$_9$ of III-5 b♭, d, f, a♭, c♭.
VII of III-5 d, f, a♭.
VII$_7$ of III-5 d, f, a♭, c.
VII$_{7^0}$ of III-5 d, f, a♭, c♭.

The natural resolution is to III. Other progressions are to III-5, III$_7$, I, I$_{-7}$, VI, V$_7$, VII$_7$, V$_7$ of VI, I^{II}.



It should be noted in the dominant formations of the III in minor that the VII, VII_7, and VII_{7^o} chords are not actually out of the "c" minor signature and consequently need not be considered as actual transitions except as derivatives of the transitional formations. These chords do not add any new color to the scale and are given merely as formulæ.

Exercises:



I. 9. 7. 7. I. 7. I. 7. I. II.
VI. VII°. & V. of V. II. VI.
7. I. 7. II. 7. II.
V. of III-5. III VII. V.
Open. I. 7. III. I. 7. II. I.
a.
V. of III-5. VI. II. VII.
7. 7. I. 7. I. II. I.
V. of VI. IV. V. of III-5. IV. VII.

Lesson XVII

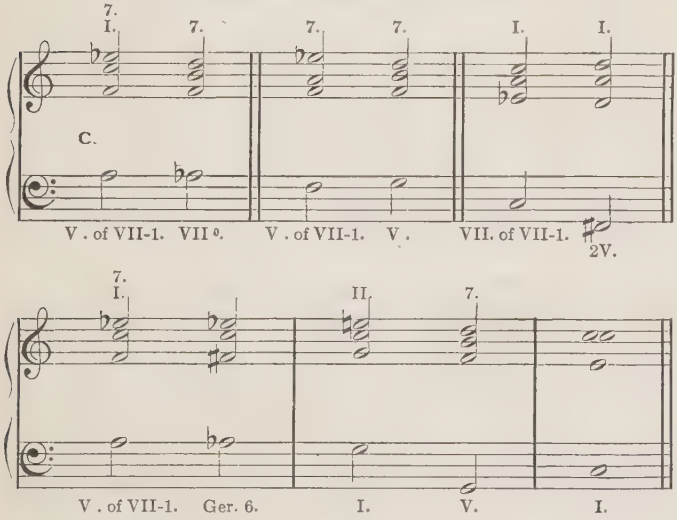
Dominant Formations of the Sub-Tonic in Major and Minor

These transitions partake of a distant relationship, being so radically out of the key picture. But their possible use warrants their inclusion in the table of transitions, and for this reason are herewith given.

C major or c minor:

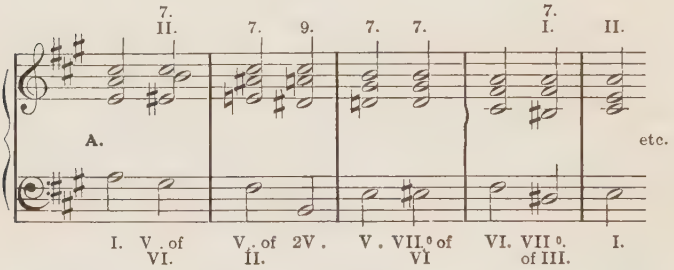
V of VII—1: f, a, c.
V_7 of VII—1: f, a, c, e♭.
V_9 of VII—1: f, a, c, e♭, g.
V_{-9} of VII—1: f, a, c, e♭, g♭.
VII of VII—1: a, c, e♭.
VII_7 of VII—1: a, c, e♭, g.
VII_{7^0} of VII—1: a, c, e♭, g♭.

Natural progression is to VII—1 or VII. Irregular progressions which are more suitable and natural are to: V, V_7, VII_7, VII_{7^0}, II_7, II_{7-5}, V formations of the V, Italian, French and German 6ths, etc.

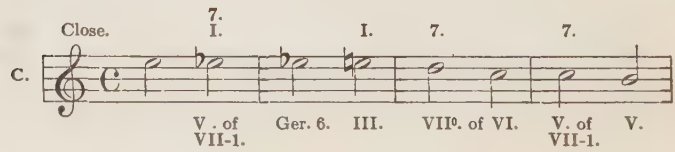
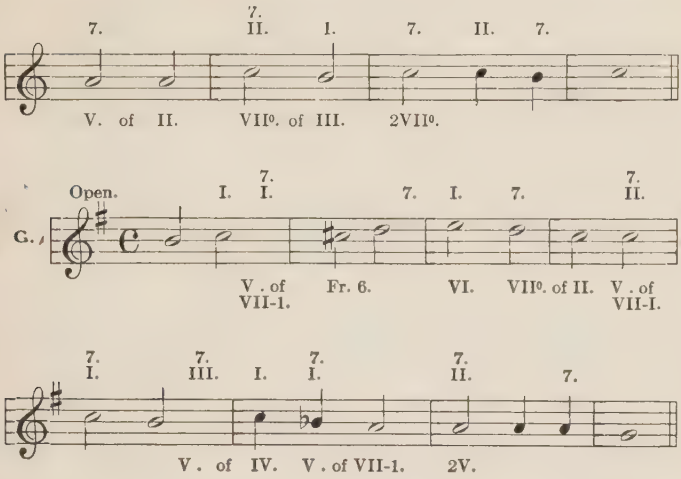


In summarizing the work on transitions the student will realize that a great many new colors have been introduced into the one key which apparently do not

belong there so far as signature is concerned. This need not cause a moment's uneasiness, as the study of the classicists from Beethoven's time to the present will reveal all these chords used freely and with wonderful effectiveness.

Such progressions as:

are frequently found and can be analyzed only transitionally, as no definite tonic is revealed. To call each of these seventh chords in a different key from the original would be far-fetched and confusing as well as contradictory to the laws of modulation. The student is advised to begin the harmonic analysis of the early Beethoven Sonatas at this point; and he will discover, upon careful study, that three-fourths of the so-called modulations are simply transitions.

Exercises:



Lesson XVIII

The Relative Sixth Chords to the Various Dominant Formations

C major:

The Italian 6th	of the II in Major:	g♯, b♭, d.
The German 6th	" " " " "	g♯, b♭, d, f.
The French 6th	" " " " "	e, g♯, b♭, d.
The Neapolitan 6th	" " " " "	e♭, g, b♭.
The Neapolitan $\frac{6}{5}$	" " " " "	e♭, g, b♭, d.

These chords resolve to the V formations of the II, including the I^{II}, which is considered a V formation.

C major:

The Italian 6th of the IV in Major: b♮, d♭, f.
The German 6th " " " " " b♮, d♭, f, a♭
The French 6th " " " " " g, b♮, d♭, f.
The Neapolitan 6th " " " " " g♭, b♭, d♭.
The Neapolitan $\frac{6}{5}$ " " " " " g♭, b♭, d♭, f

Resolutions to V formations of IV.

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c minor:

The Italian 6th of the IV in minor: b♮, d♭, f.
The German 6th " " " " " b♮, d♭, f, a♭.
The French 6th " " " " " g, b♮, d♭, f.
The Neapolitan 6th " " " " " g♭, b♭, d♭.
The Neapolitan $\frac{6}{5}$ " " " " " g♭, b♭, d♭, f.

Resolutions to V formations of IV.

C major:

The Italian 6th of the VI in Major: d♯, f, a.
The German 6th " " " " " d♯, f, a, c.
The French 6th " " " " " b, d♯, f, a.
The Neapolitan 6th " " " " " b♭, d, f.
The Neapolitan $\frac{6}{5}$ " " " " " b♭, d, f, a.

Resolutions to the V formations of VI.

---

c minor:

The Italian 6th of the VI in minor: d♮, f♭, a♭.
The German 6th " " " " " d♮, f♭, a♭, c♭.
The French 6th " " " " " b♭, d♮, f♭, a♭.
The Neapolitan 6th " " " " " b♭♭, d♭, f♭.
The Neapolitan $\frac{6}{5}$ " " " " " b♭♭, d♭, f♭, a♭.

Resolutions to the V formations of VI.

C major:

The Italian 6th of the III in Major: a♯, c, e.
The German 6th " " " " " a♯, c, e, g.
The French 6th " " " " " f♯, a♯, c, e.
The Neapolitan 6th " " " " " f, a, c.
The Neapolitan $\frac{6}{5}$ " " " " " f, a, c, e.

Resolutions to the V formations of III.

---

c minor:

The Italian 6th of the III—5 in minor: a♮, c♭, e♭.
The German 6th " " " " " a♮, c♭, e♭, g♭.
The French 6th " " " " " f, a♮, c♭, e♭.
The Neapolitan 6th " " " " " f♭, a♭, c♭.
The Neapolitan $\frac{6}{5}$ " " " " " f♭, a♭, c♭, e♭.

Resolutions to the V formations of III—5.

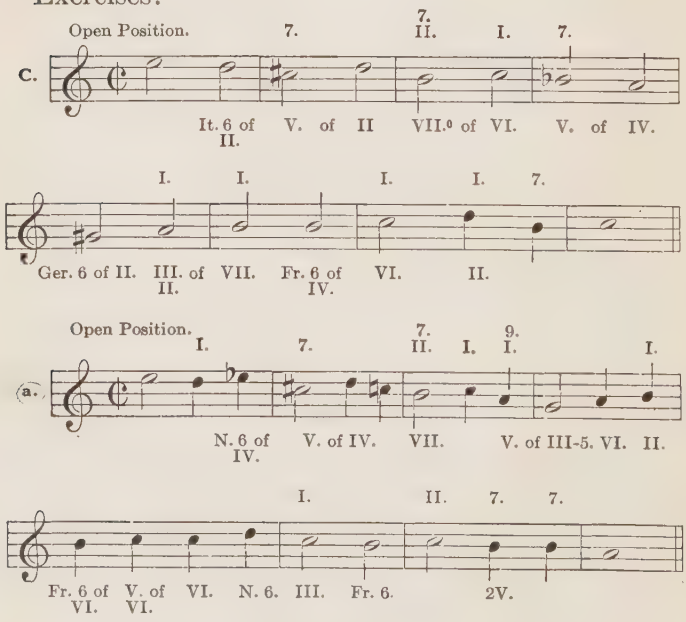
C major:

The Italian 6th of the Sub-tonic in Major: e, g♭, b♭.
The German 6th of the Sub-tonic in Major: e, g♭, b♭, d♭.
The French 6th of the Sub-tonic in Major: c, e, g♭, b♭.
The Neapolitan 6th of the Sub-tonic in Major: c♭, e♭, g♭.
The Neapolitan $\frac{6}{5}$ of the Sub-tonic in Major: c♭, e♭, g♭, b♭.

Resolutions to the V formations of VII—1.

These formations should be carefully studied, and the various possible resolutions practiced in several keys. It will be seen, in glancing over these augmented sixths, that every possible sixth chord is included, such as the plain augmented sixths as well as the sixths formed by lowering the 3d of the VII, VII_7 and the 5th of the V_7. It will be found that the seventh of the German 6th is sometimes enharmonically changed, but this does not affect the status of the chord or its progressions and is merely done for the sake of convenience in reading.

Exercises:

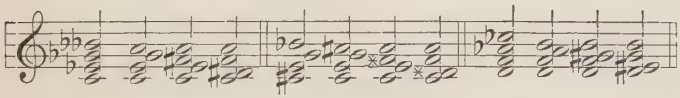


Lesson XIX

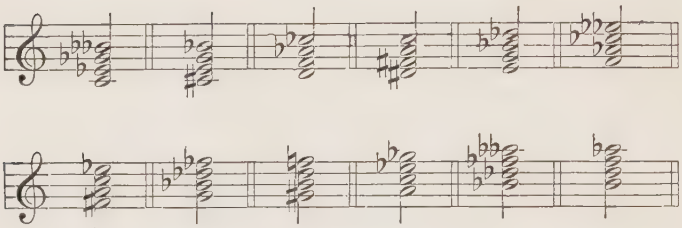
The Freer Uses of the Diminished Seventh Chord

In Lesson XXXII of the "First Forty Lessons in Harmony," the diminished seventh chord was treated in its simple relationship to the natural chords of the scale. In this chapter we shall endeavor to amplify its uses in relation to its many transitional possibilities through its enharmonic, chromatic, and diatonic changes.

There are but three diminished sevenths of different sound, and these are built on three chromatic roots. The diminished seventh built on the fourth chromatic tone of the scale will sound the same as that formed on the first tone with enharmonic notation. Each factor of the VII_{7^0} permits of four different enharmonic spellings:

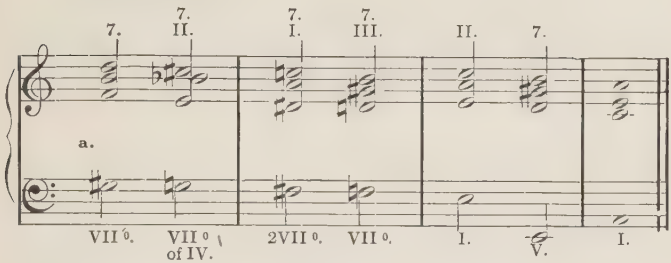
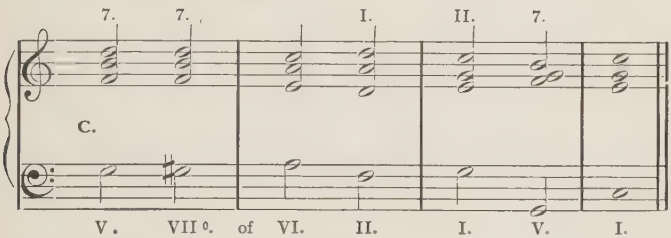
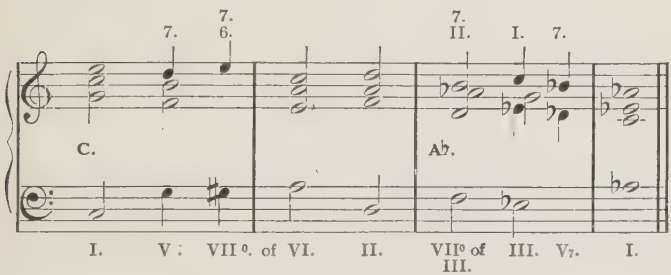


Thus we have twelve different diminished sevenths, which, when arranged in the duodecuple* scale, would read:

* A "duodecuple" scale is a scale of twelve tones which are naturally chromatic, but it is used by some of the most modern composers as a real scale from which to draw their harmonies and not at all in a chromatic sense.

It will be readily recognized that this series of diminished sevenths covers the entire chromatic range of the scale and, as each seventh chord has four possible enharmonic readings, this will give one four times the number of chords illustrated, or forty-eight differently written chords. Then again, the three remaining factors of each diminished seventh may be written in four ways making twelve more for each chord, and as there are twelve chords, the result will be 144 more sevenths. This, added to the original forty-eight chords, will give 192 diminished sevenths resulting from those formed on the first three chromatic roots. Of these 192 diminished seventh chords there will be found but three of distinctly different sound. The others will be different only in notation.

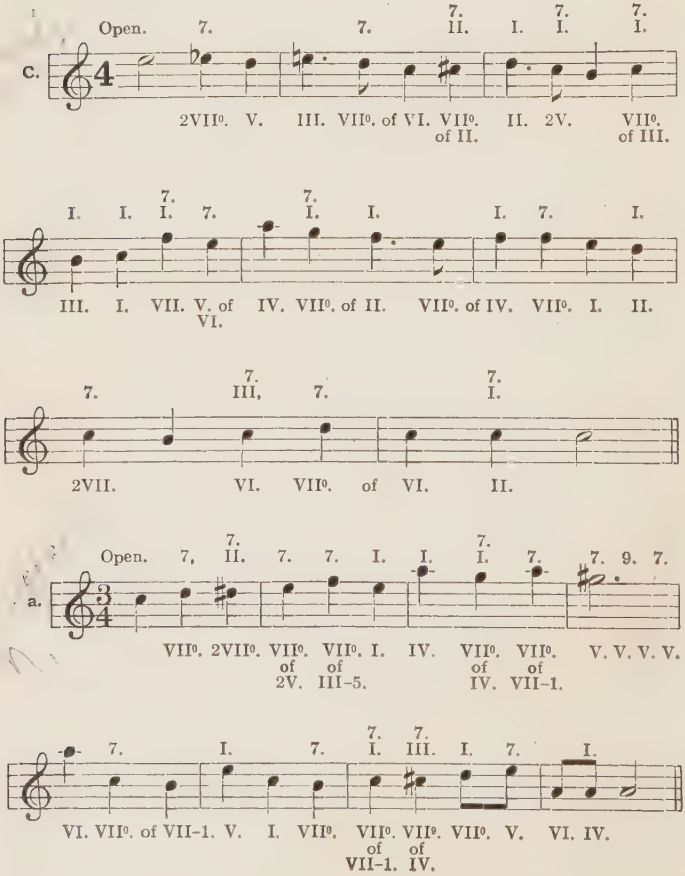
Sequences of passing chromatic seventh chords may be used freely in parallel motion, as no parallel fifths or octaves can result.

The movement of one diminished seventh chord to another in a different key is one of the simplest means of transition or modulation, whichever the student desires.

Passing VII_7 ths.

Transitional use of VII_7 ths.

Modulatory use of VII_7 ths.

It would be next to impossible to begin to cite the very many possible uses of the diminished seventh chord. Its flexibility is apparent and consequently its uses are unlimited. The fact that it may precede

or follow any chord gives it the widest possible scope harmonically, and its pleasurable sound gives to it a popularity with which no other chord can compete.

Exercises:


c.
Open. 7. 7. 7. II. I. 7. I. 7. I.
2VII°. V. III. VII°. of VI. VII°. of II. II. 2V. VII°. of III.
I. I. 7. I. 7. I. I. I. 7. I.
III. I. VII. V. of VI. IV. VII°. of II. VII°. of IV. VII°. I. II.
7. 7. III. 7. 7. I.
2VII. VI. VII°. of VI. II.
a.
Open. 7, 7. II. 7. 7. I. I. 7. I. 7. 7. 9. 7.
VII°. 2VII°. VII°. of 2V. VII°. of III–5. I. IV. VII°. of IV. VII°. of VII–1. V. V. V. V.
7. I. 7. 7. I. III. I. 7. I.
VI. VII°. of VII–1. V. I. VII°. VII°. of VII–1. VII°. of IV. VII°. V. VI. IV.

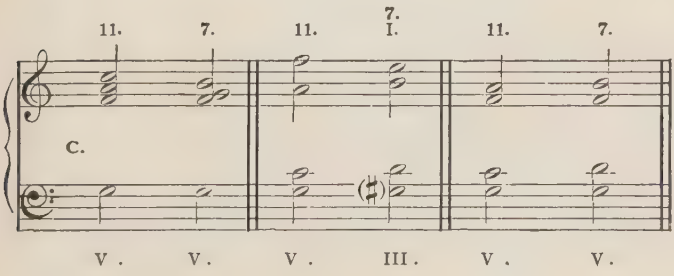
The student will do well to experiment at great length with the possibilities of this chord, as it will serve him in great stead in his future work.

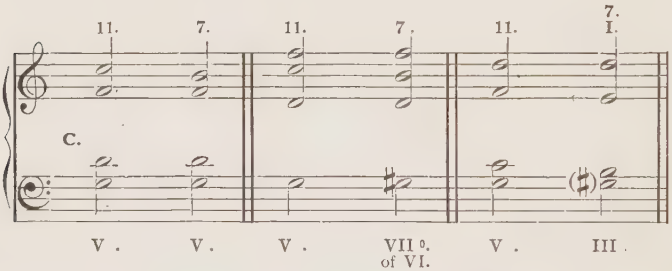
Lesson XX

The Dominant Eleventh and Thirteenth The Supertonic Ninth and the Subdominant Ninth

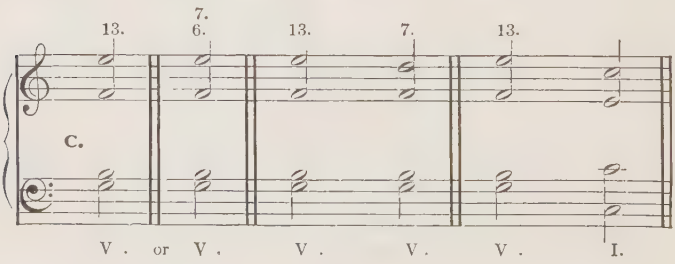
The Dominant 11th Chord: g, b, d, f, a, c.

This chord is written with two note omissions, either the third and fifth: g, f, a, c; or the third and ninth: g, d, f, c.

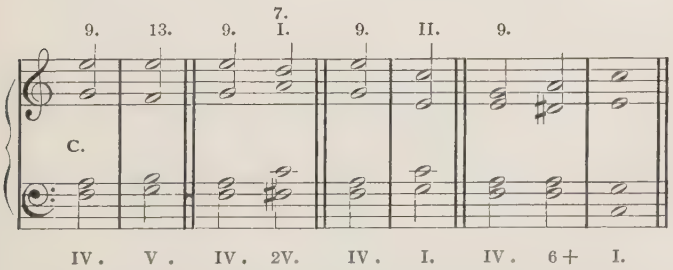
If the third and fifth are omitted, the feeling of a subdominant triad over a dominant pedal point results.

The natural tendency of the V_{11} chord is to another dominant formation. The eleventh may tie, or move up or down to the next degree.

When the 3d and 9th are omitted, the result will give the impression of a suspension of the 3d of the dominant.

When the root and third are omitted, we have simply the II_7. Consequently it would seem ambiguous to treat them otherwise than as such formations.

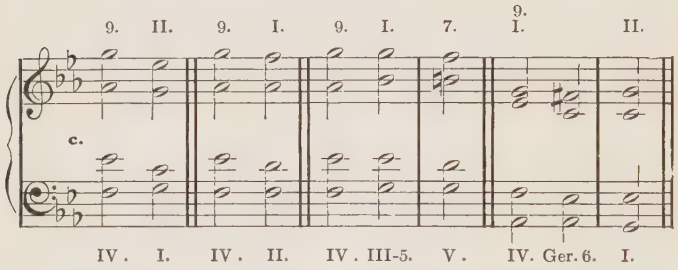
The Dominant Thirteenth: g, b, d, f, a, c, e.

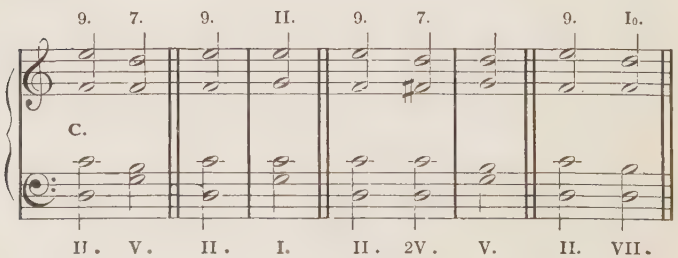
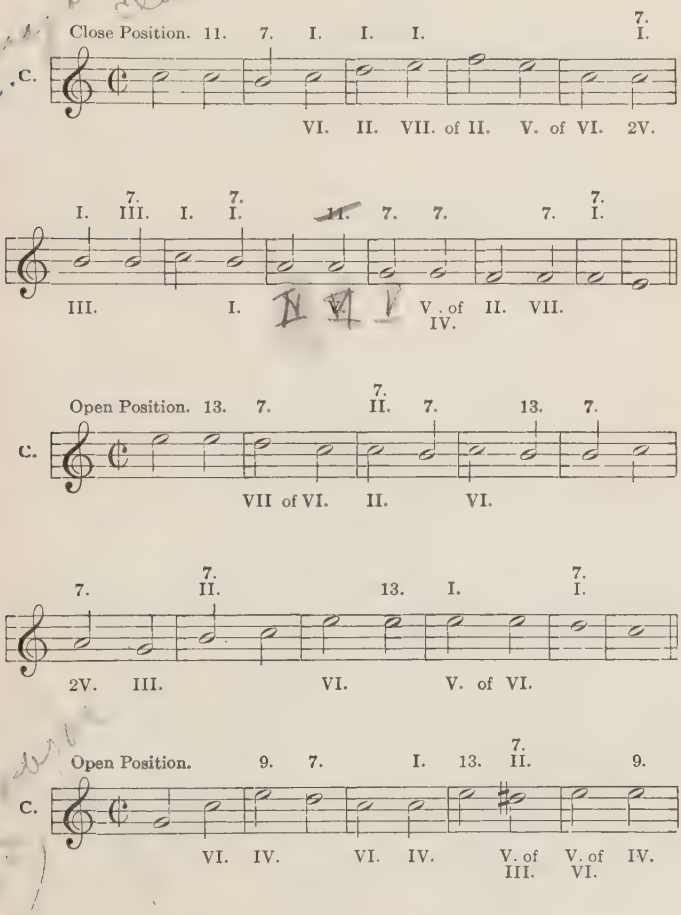
This chord contains the entire scale in its formation. The fifth, ninth, and eleventh are usually omitted, in which case the $\frac{7}{6}$ chord results:

The V_{13} gives two distinct impressions, the first as that of an appoggiatura of the fifth of the V or V_7; the second as that of a changing note, *i.e.*, the fifth of the V or V_7 changed to the next tone above. As an appoggiatura it naturally will progress to the next tone below, and as the changing note it will skip down a third or some other suitable interval into a tonic formation. The chord may also be written in the first inversion with 13th in the melody. Progressions are the same.

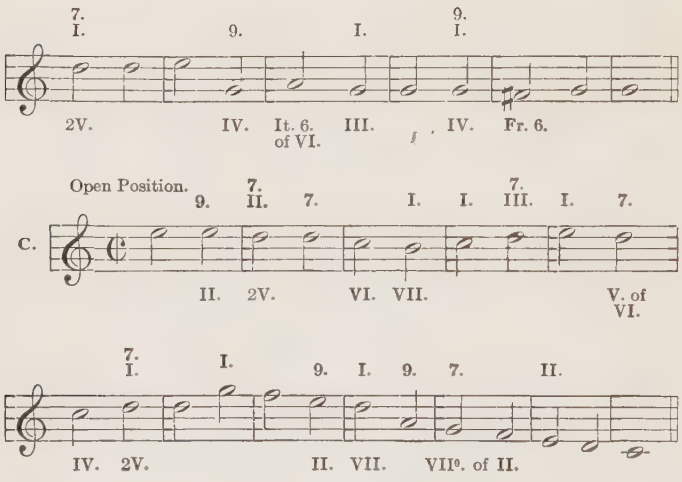
The Subdominant Ninth Chord in Major

In touching on these odd ninth chords in this work we do so only because of their possibilities in the harmonic scheme and not because we advocate their use to any great extent. These chords find their principal reason for existence as a part of the cadence and even then more in the melodic sense than as purely harmonic formations. The fifth of the chord is usually omitted.

It will be seen that the IV_9 progresses to another IV formation or, as is the natural tendency of the

formation, into a V formation. It may be preceded by a chord of tonic character or by another IV quality.

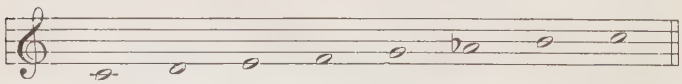
The IV_9 may also be employed in minor, progressing to II, I^{11}, III—5, G6th. The 9th of the chord sounds best in the melody.

If the IV_9 is used with raised 3rd, it becomes the V_9 of the subtonic (b♭, d, f), but may also progress to another IV formation or to a V or V derivative.

The II_9 in major is good in root position only, with fifth omitted. It progresses to V, V_7, V_9, III^I, VII, VII_7, VII_{7^0}, I^{11}, II, II_7, 2V, $2V_7$, $2V_9$, 2VII, $2VII_7$, $2VII_{7^0}$.

In minor the II_9 is almost too harsh for practical use, although it naturally may be used if desired. The progressions in all instances would be the same as in major.

Close Position. 11. 7. I. I. I. 7. I.
C.
VI. II. VII. of II. V. of VI. 2V.
I. 7. III. I. 7. I. 7. 7. 7. 7. I.
III. I. V. of IV. II. VII.
Open Position. 13. 7. 7. II. 7. 13. 7.
C.
VII of VI. II. VI.
7. 7. II. 13. I. 7. I.
2V. III. VI. V. of VI.
Open Position. 9. 7. I. 13. 7. II. 9.
C.
VI. IV. VI. IV. V. of III. V. of VI. IV.



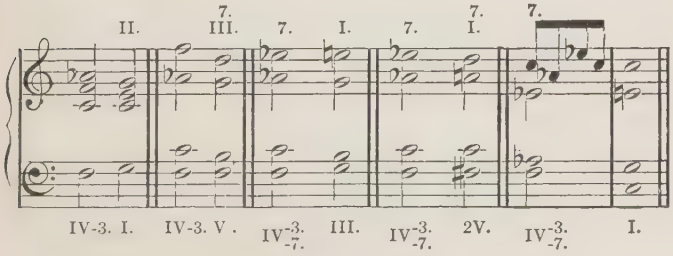
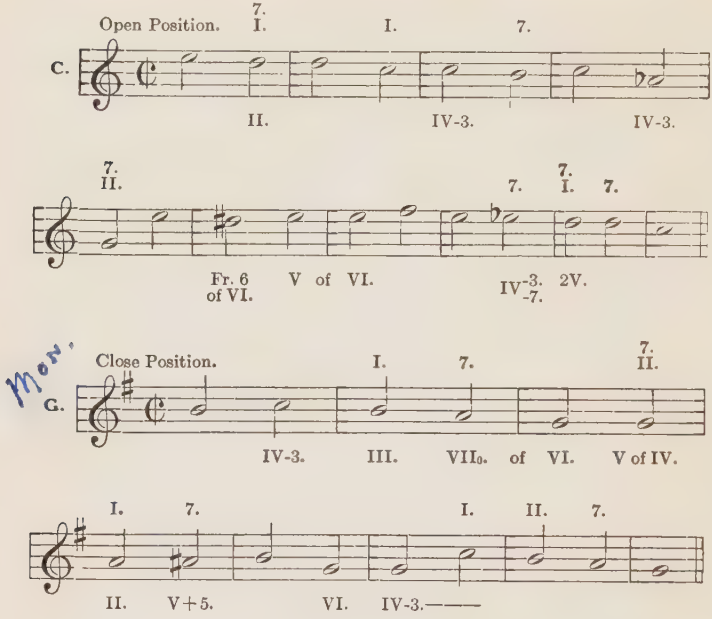
Lesson XXI

The Milder Major Mode: Subdominant Affectations

This is the Major Scale with lowered sixth borrowed from the parallel minor scale.

This borrowed factor, while not disturbing in the least the major strength of the scale, does give it a milder feeling or expression and is used a great deal in ecclesiastical music as well as in other mediums. It is particularly effective in the cadence and adds strength and color to chords which follow it.

The lowered sixth affects the IV, making it a minor triad: f, a♭, c. This may be freely used in substitution for its major form. The IV_7 with lowered 3rd is also found, but not so frequently as the IV_7 with both 3rd and 7th lowered. The lowered 7th of the IV_7 is also a borrowed factor from the parallel minor, being flatted mediant of the scale. Another chord affected by the lowering of the sixth degree is the Italian 6th, and by both the lowered 3rd and 6th of the scale, the German 6th. Thus we have the following:

IV—3:	f, a♭, c.
IV_{7-3}:	f, a♭, c, e.
IV^{7-3}_{-7}:	f, a♭, c, e♭.
Italian 6th:	f♯, a♭, c.
German 6th:	f♯, a♭, c, e♭.

Being subdominant formations, their natural progressions are to chords of dominant formations or other subdominant chords. Experimentation will reveal a great many uses for these chords and will amply repay any amount of research.



Lesson XXII

The Milder Major Mode: Supertonic Affectations

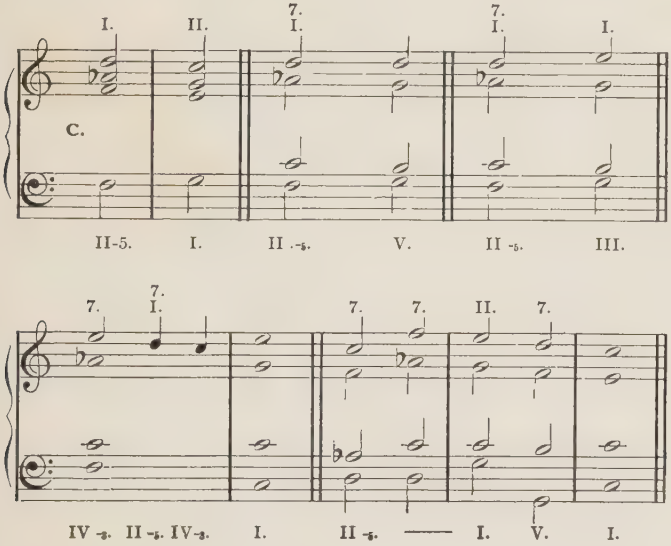
The lowered 6th of the major scale also affects the chords formed on the supertonic:

II—5: d, f, a♭.

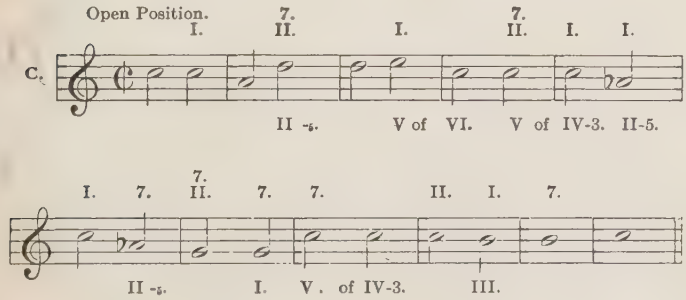
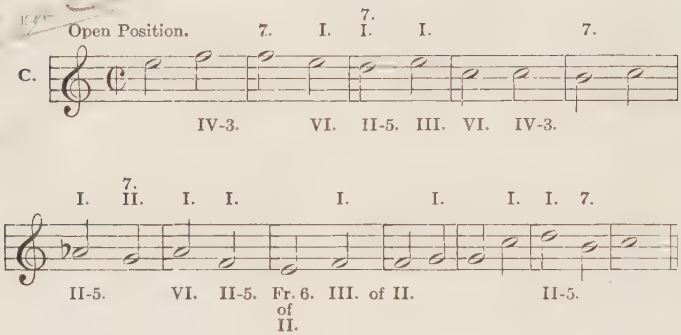
II_{7-5}: d, f, a♭, c.

Fr. 6th: d, f♯, a♭, c.

These are also subdominant in quality and progress in the usual way, or to other chords of the same quality.



Exercises:



Lesson XXIII

The Milder Major Mode: Submediant and Leading-Tone Affectations

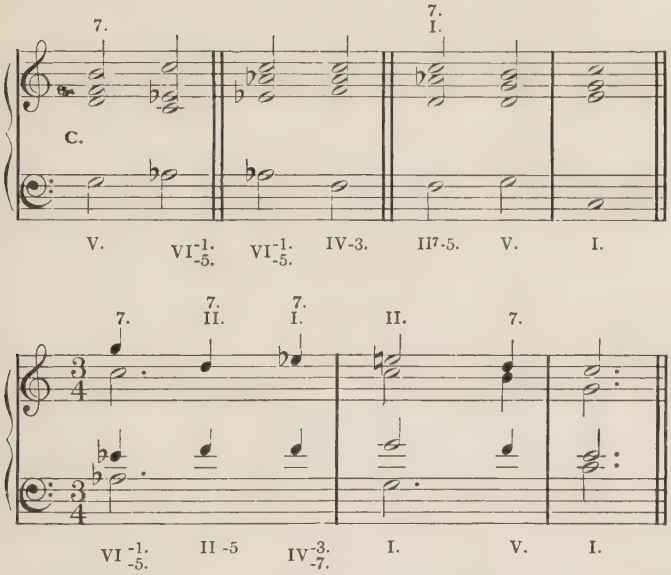
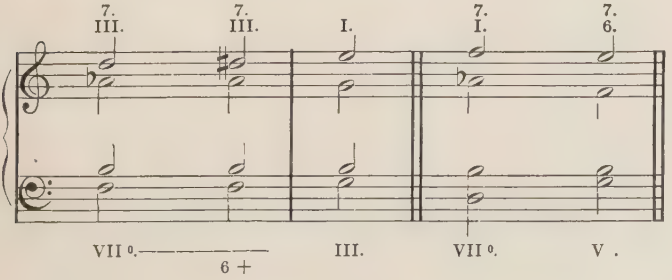
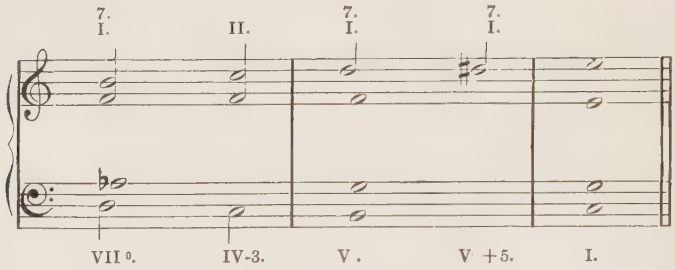
The lowered 6th and 3rd of the major scale also may affect the submediant with the following results:

VI—1: a♭, c, e.

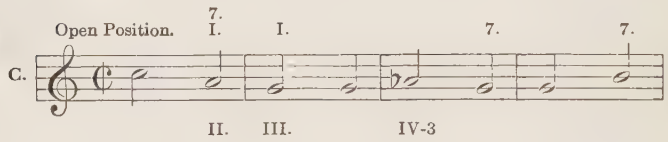
VI^{-I}_{-5}: a♭, c, e♭.

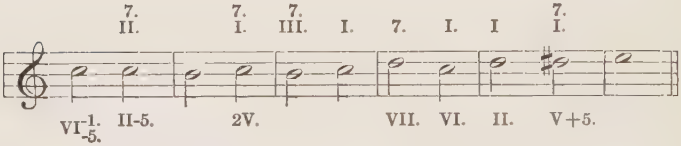
VI_{7-1}: a♭, c, e, g.

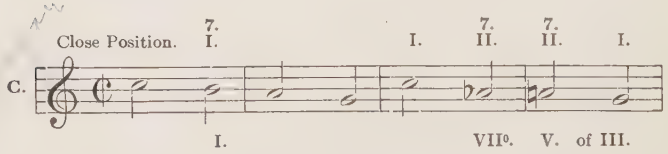
VI^{7-I}_{-5}: a♭, c, e♭, g.

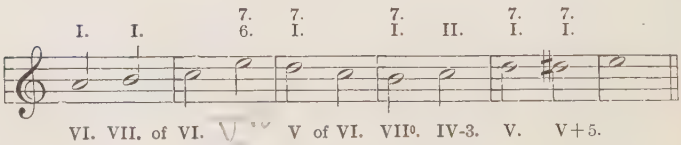
These chords, while they may be of some practical use, do not find place as often as the other affectations of the scale. They are, however, of use, especially the VI^{-I}_{-5}, which may substitute for the plain VI.

The lowered 6th of the scale will give us a diminished 7th: b, d, f, a♭, and, with a 3rd added below the chord, a dominant minor 9th: g, b, d, f, a♭. Also b, d♯, f, a♭, a doubly augmented chord, a variation of the French 6th of the VI.

7. I.
II.
7. I.
7. I.
VII °.
IV-3.
V .
V +5.
I.

Exercises:


Open Position.
7. I.
I.
7.
7.
C.
II.
III.
IV-3


7. II.
7. I.
7. III.
I.
7.
I.
I
7. I.
VI 1. -5.
II-5.
2V.
VII.
VI.
II.
V+5.


Close Position.
7. I.
I.
7. II.
7. II.
I.
C.
I.
VII°.
V. of III.


I.
I.
7. 6.
7. I.
7. I.
II.
7. I.
7. I.
VI.
VII. of VI.
V
V of VI.
VII°.
IV-3.
V.
V+5.

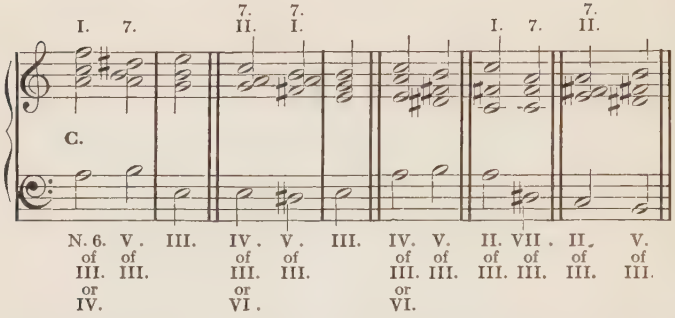
Lesson XXIV

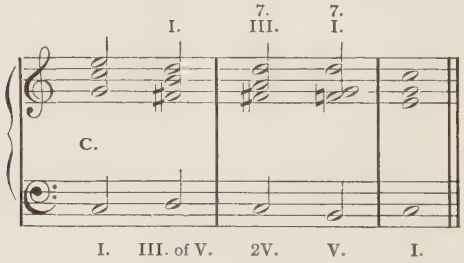
The Transitional Relationship of Other Triads and Sevenths to the Various Major and Minor Triads of Both Modes

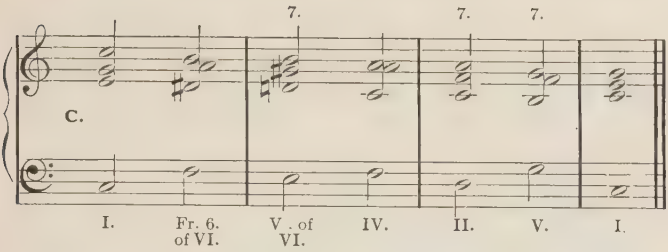
In this lesson we are to consider the approaching chords to the various V formations. As the strongest and most consistent approach to a dominant chord is through a subdominant formation, we will consider these first and other possibilities afterwards.

The dominant of the mediant in C major is b, d♯, f♯. This chord is to be used and the approach is to be as undisturbing and as natural as possible. The first procedure is to consider the subdominant qualities of the mediant triad. These are:

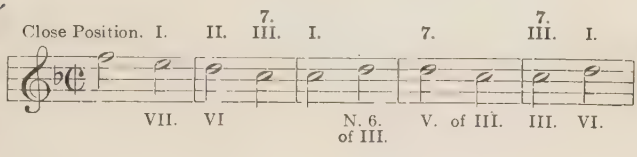
IV of III: a, c, e.
II of III: f♯, a, c.
IV_7 of III: a, c, e, g.
II_7 of III: f♯, a, c, e.
Neap. 6 of III: f, a, c.
Neap. $\frac{6}{5}$ of III: f, a, c, e; etc.

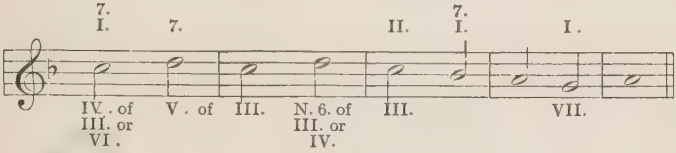
Thus we have a great variety of chords of approach any one of which will be found suitable.

In this manner the chords of approach to any dominant formation can be easily found.

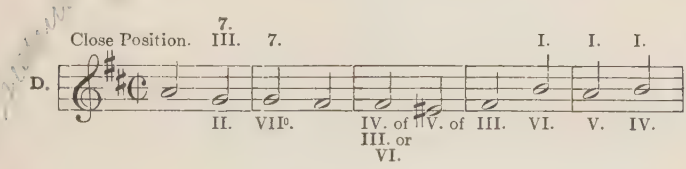
Other chords of approach, such as the mediant of the new tonic, are but extended dominant formations that have been consciously or unconsciously approached by a chord of subdominant quality.

In the above illustration the real chord of approach is not the III of V but the I of "C" which is a subdominant in the transition to the dominant, G.

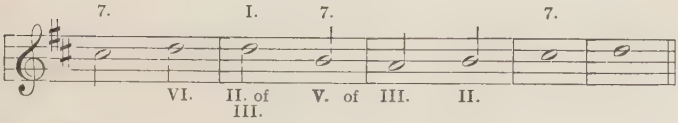
In the following illustration the chord of approach is the French 6th of the VI, which is a strong subdominant factor.

7.
7.
7.
C.
I.
Fr. 6. of VI.
V. of VI.
IV.
II.
V.
I.

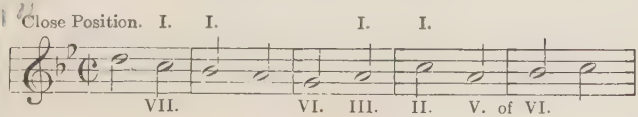
Exercises:

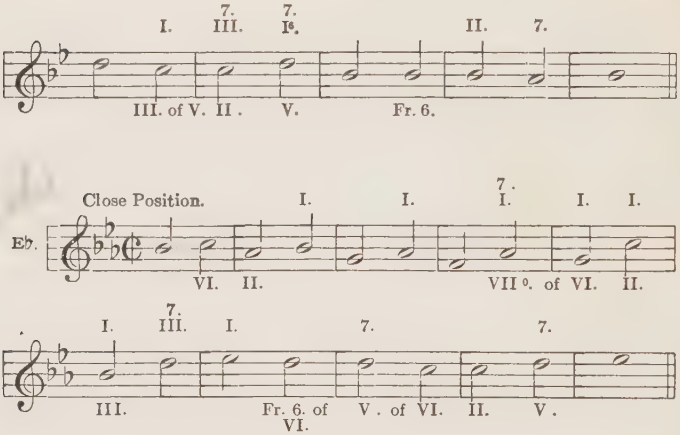

Close Position. I.
II.
7. III.
I.
7.
7. III.
I.
F.
VII.
VI
N. 6. of III.
V. of III.
III.
VI.


7. I.
7.
II.
7. I.
I.
IV. of III. or VI.
V. of III.
N. 6. of III. or IV.
III.
VII.


Close Position.
7. III.
7.
I.
I.
I.
D.
II.
VII°.
IV. of III. or VI.
V. of III.
VI.
V.
IV.


7.
I.
7.
7.
VI.
II. of III.
V. of III.
II.


Close Position. I.
I.
I.
I.
B♭.
VII.
VI.
III.
II.
V. of VI.



Lesson XXV

Modulation: The Subdominant Formations in Major

In the preceding chapters on Transitions the student has been wavering unsteadily on the edge of modulation. In fact, the last chapter, on the transitional relationship of other triads and sevenths to the various major and minor triads of both modes, almost completely submerged him into a new tonality unless he was particularly careful to step back immediately into his original tonic. The line of demarcation between transition and modulation, at the most, is very slight and depends entirely on but a few modifications.

Modulation is the complete change of feeling of tonic; in other words, it is the abandonment of the original key and the establishment of a new key. To establish a new key the important factors to be considered are the introduction of the new leading tone as well as the new subdominant. The new leading tone will be found in any of the dominant formations. The new subdominant may be expressed through the use of any of the following chords, all of which are subdominant qualities:

C major:	IV:	f, a, c.
	IV_7:	f, a, c, e.
	II:	d, f, a.
	II_7:	d, f, a, c.
	IV—3:	f, a♭, c.
	IV_{7-3}:	f, a♭, c, e.
	II—5:	d, f, a♭.
	II_{7-5}:	d, f, a♭, c.
	$IV_{7\,-7}^{-3}$:	f, a♭, c, e♭.
	IV_{7-7}:	f, a, c, e♭.
	VI:	a, c, e.
	VI_{-5}^{-I}:	a♭, c, e♭.
	It. 6th of VI:	d♯, f, a.
	Ger. 6th of VI:	d♯, f, a, c.
	Fr. 6th of VI:	b, d♯, f, a.
	VII_{7^0}:	b, d, f, a♭.
	2V:	d, f♯, a.
	$2V_7$:	d, f♯, a, c.
	$2V_9$:	d, f♯, a, c, e.
	$2V_{9-9}$:	d, f♯, a, c, e♭.

2VII: f♯, a, c.
2VII$_7$: f♯, a, c, e.
2VII$_{7^0}$: f♯, a, c, e♭.
It. 6th: f♯, a♭,c.
Ger. 6th: f♯, a♭, c, e♭.
Fr. 6th: d, f♯, a♭, c.
Neap. 6th: d♭, f, a♭.

To establish a new key a complete cadence into the new tonality is necessary. Such a cadence must contain a chord possible of formation in the original key as well as the new key. This we call the pivot-chord and it should be one of the above subdominant formations. Following this chord the second inversion of the new tonic may be introduced or the pivot-chord may move directly to the new dominant.

Key Relationship

Those keys nearest in key signature are said to be nearly related keys. These are the major dominant and subdominant and the relative minors of these and of the original tonic.

G major.....e minor
C major.....a minor
F major.....d minor

These are called keys of the first relationship, as they possess so many common qualities and have but one accidental difference in signature. To find the keys of first relationship to a minor tonic simply reverse the order:

e minor.....G major
a minor.....C major
d minor.....F major

The keys of second relationship to a major tonic are the parallel minor, the subdominant minor, the mediant major, the flatted mediant major, the submediant major, and the flatted submediant major.

G major.....e minor *E major* *E♭ major*
c minor C major.....a minor A *major* A♭ *major*
f minor F major.....d minor

Thus we have six new keys of second relationship to a major tonic.

There are but two keys which stand in second relationship to a minor tonic. These are the parallel major and the dominant major.

E major e minor.....G major
A major a minor.....C major
d minor.....F major

The remaining keys, the dominant minor, the supertonic major and the subtonic major, are accessible through this same formula of modulation but are less frequently used than the keys of first and second relationship. These three keys are: g minor, D major, and B♭ major. The student is advised to make tables of the subdominant formations in the commonly used major keys. By so doing he will accustom himself to thinking these formations very quickly when seated at the piano or organ, and through a little practice he will find it a very simple matter, after he has finished the work on modulation, to get to and from any desired key.

Lesson XXVI

MODULATION: THE SUBDOMINANT FORMATIONS IN MINOR

c minor:	IV:	f, a♭, c.
	IV+3:	f, a♮, c.
	IV_7:	f, a♭, c, e♭.
	IV_{7+3}:	f, a, c, e♭.
	II:	d, f, a♭.
	II+5:	d, f, a♮.
	II_7:	d, f, a♭, c.
	II_{7+5}:	d, f, a♮, c.
	VI:	a♭, c, e♭.
	VI_7:	a♭, c, e♭, g.
	VII_{7^0}:	b, d, f, a♭.
	2V:	d, f♯, a♮.
	$2V_7$:	d, f♯, a♮, c.
	$2V_9$:	d, f♯, a♮, c, e♭.
	2VII:	f♯, a♮, c.
	$2VII_{7^0}$:	f♯, a♮, c, e♭.
	It. 6th:	f♯, a♭, c.
	Ger. 6th:	f♯, a♭, c, e♭.
	Fr. 6th:	d, f♯, a♭, c.
	N. 6th:	d♭, f, a♭.

It will be found that there are fewer subdominant formations in the minor mode than there are in the major. This is because of the minor scale formation eliminating certain chords that are possible in major.

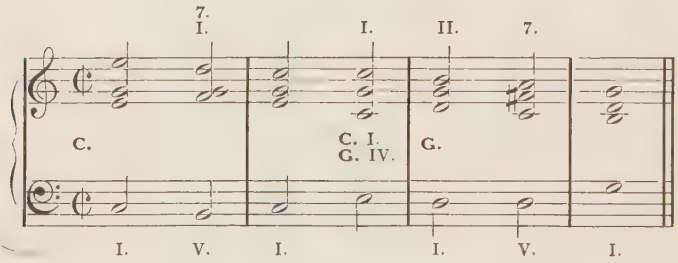
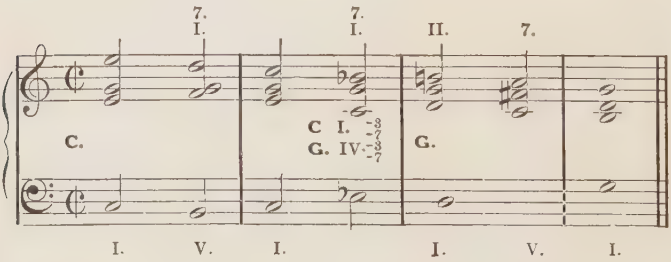
Write out tables of subdominant formations in various minor keys.

Lesson XXVII

MODULATION TO THE MAJOR DOMINANT KEY

C Major to G Major

c, e, g, I	IV
c, e, g, b, I_7	IV_7
a, c, e, VI	II
a, c, e, g, VI_7	II_7
c, e♭, g, I—3	IV—3
c, e♭, g, b, I_{7-3}	IV_{7-3}
a, c, e♭, VI—5	II—5
a, c, e♭, g, VI_{7-5}	$II_{7\ 5}$
c, e♭, g, b♭, I^{3}_{7}	IV^{3}_{7}
c, e, g, b♭, I_{7-7}	IV_{-7}
e, g, b, III	VI
e♭, g, b♭, III^{I}_{-5}	VI^{I}_{-5} or Neap. 6th of V
a♯, c, e, It. 6 of III	It. 6th of VI
a♯, c, e, g, Ger. 6 of III	G. 6th of VI
f♯, a♯, c, e, Fr. 6 of III	Fr. 6th of VI
f♯, a, c, e♭, $2VII_{7^0}$	VII_{7^0}
a, c♯, e, V of II	2V
a, c♯, e, g, V_7 of II	$2V_7$
a, c♯, e, g, b, V_9 of II	$2V_9$
a, c♯, e, g, b♭, V_{-9} of II	$2V_{-9}$
c♯, e, g, VII of II	2VII
c♯, e, g, b, VII_7 of II	$2VII_7$
c♯, e, g, b♭, VII_{7^0} of II	$2VII_{7^0}$
c♯, e♭, g, It. 6th of V	It. 6th
c♯, e♭, g, b♭, Ger. 6th of V	Ger. 6th
a, c♯, e♭, g, Fr. 6th of V	Fr. 6th
a♭, c, e♭, Neap. 6th of V	Neap. 6th

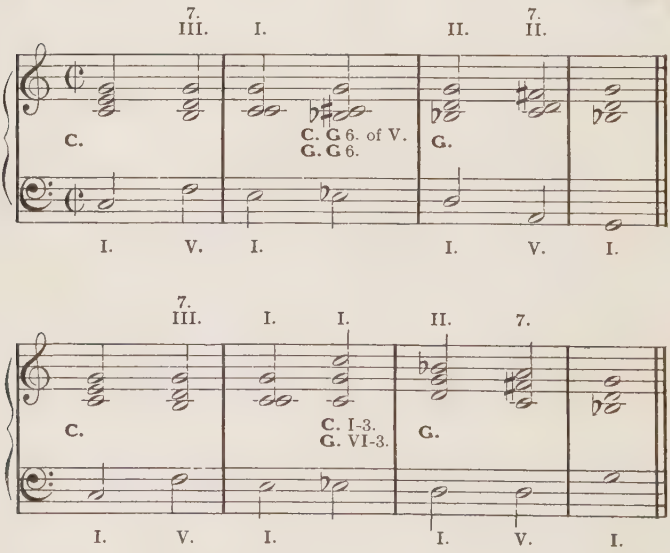
In modulating to the key of the dominant, any one of the above chords may serve as the pivot on which to turn into the new tonality. After the pivot-chord the cadence should definitely establish the new tonic.

The first three chords in the above illustration are used to define the original key of C major. The fourth chord is a common chord belonging to both keys and the turning point into G major. The last three chords form the remainder of the complete cadence into the new tonality.

The exercises should consist of four-measure modulations into dominant keys. It is not always necessary to employ the second inversion of the new tonic in the cadence, although it does strengthen and anticipate the new tonic when used more than any other chord that might substitute for it. Another subdominant formation could be used in its stead or a direct progression into the new dominant formation employed. In making these modulations, care should be taken in voice-leading as a great deal will depend upon melodic contour, especially in bass and soprano.

Modulations to the Minor Dominant Key

C Major to G minor

c, e♭, g: I—3	IV
c, e♮, g: I	IV+3
c, e♭, g, b♭: I_7^3	IV_7
a, c, e♭: VI—5	II
a, c, e♮: VI	II+5
a, c, e♭, g: VI_{7-5}	II_7
a, c, e♮, g: VI_7	II_{7+5}
e♭, g, b♭: III_5^1	VI
e♭, g, b♭, d: $III_{7\,5}^{\ 1}$	VI_7
f♯, a, c, e♭: VII_{7^0} of V	VII_{7^0}

a, c♯, e: V of II	2V
a, c♯, e, g: V_7 of II	$2V_7$
a, c♯, e, g, b♭: V_9 of II	$2V_9$
c♯, e, g: VII of II	2VII
c♯, e, g, b♭: VII_{7_0} of II	$2VII_{7_0}$
c♯, e♭, g: It. 6th of V	It. 6th
c♯, e♭, g, b♭: G. 6th of V	G. 6th
a, c♯, e♭, g: Fr. 6th of V	Fr. 6th
a♭, c, e♭: Neap. 6th of V	Neap. 6th



Write four-measure exercises the same as to the dominant major.

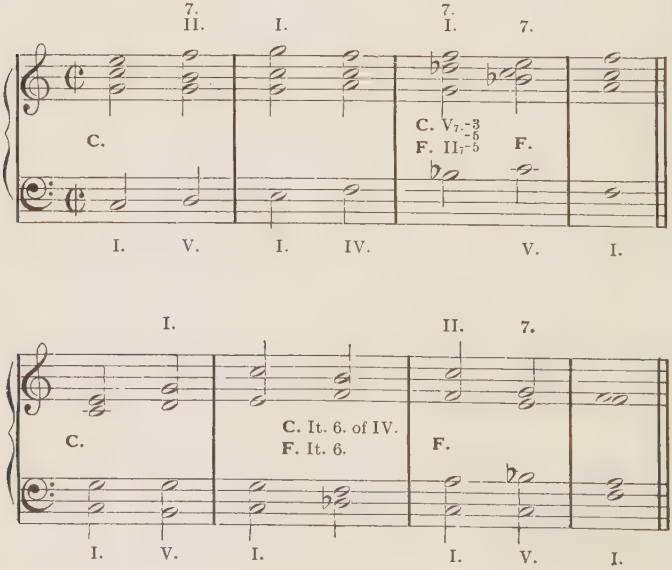
Lesson XXVIII

Modulation to the Major Subdominant Key

C Major to F Major

b♭, d, f: VII—1	IV
b♭, d, f, a: VII_{7-1}	IV_7
g, b♭, d: V—3	II
g, b♭, d, f: V_{7-3}	II_7
b♭, d♭, f: VII^{I}_{-3}	IV—3
b♭, d♭, f, a: $VII_{7}{}^{I}_{-3}$	IV_{7-3}
g, b♭, d♭: V^{-3}_{-5}	II—5
g, b♭, d♭, f: $V_{7}{}^{-3}_{-5}$	II_{7-5}
b♭, d♭, f, a♭: $VII^{-1}_{-3}{}_{-7}$	IV^{-3}_{-7}
b♭, d, f, a♭: VII^{-I}_{-7}	IV_{-7}
d, f, a: II	VI
d♭, f, a♭: Neap. 6th	VI^{I}_{-5} or Neap. 6th of V
g♯, b♭, d: It. 6th of II	It. 6th of VI
g♯, b♭, d, f: G. 6th of II	G. 6th of VI
e, g♯, b♭, d: Fr. 6th of II	Fr. 6th of VI
e, g, b♭, d♭: VII_{7^0} of IV	VII_{7^0}
g, b, d: V	2V

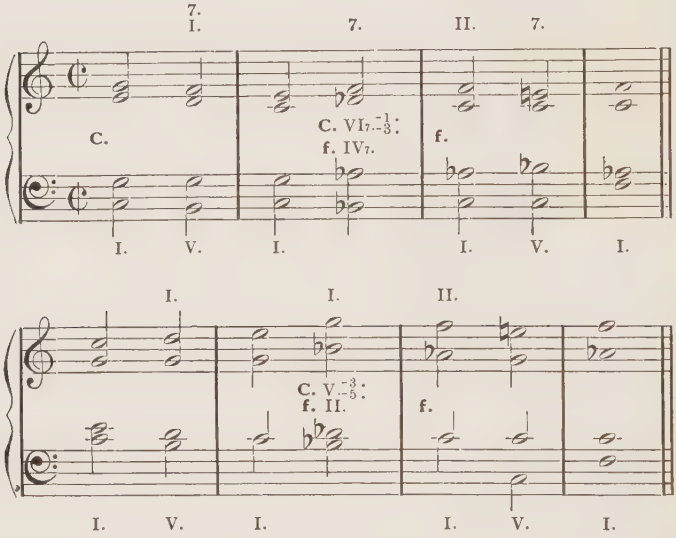
g, b, d, f: V_7	$2V_7$
g, b, d, f, a: V_9	$2V_9$
g, b, d, f, a♭: V_{-9}	$2V_{-9}$
b, d, f: VII	2VII
b, d, f, a: VII_7	$2VII_7$
b, d, f, a♭: VII_{7^0}	$2VII_{7^0}$
b, d♭, f: It. 6th of IV	It. 6th
b, d♭, f, a♭: G. 6th of IV	G. 6th
g, b, d♭, f: Fr. 6th of IV	Fr. 6th
g♭, b♭, d♭: Neap. 6th of IV	Neap. 6th



Modulation to the Minor Subdominant Key

C Major to f minor

b♭, d♭, f: VII^{-I}_{-3}	IV
b♭, d, f: VII—1	IV+3
b♭, d♭, f, a♭: $VII^{-I}_{-3\ -7}$	IV_7
g, b♭, d♭: V^{-3}_{-5}	II
g, b♭, d: V—3	II+5
g, b♭, d♭, f: $V_7{}^{-3}_{-5}$	II_7
g, b♭, d, f: V_{7-3}	II_{7+5}
d♭, f, a♭: Neap. 6th	VI
d♭, f, a♭, c: Neap.$^{6}_{5}$	VI_7
e, g, b♭, d♭: VII_7 of IV	VII_{7^0}
g, b, d: V	2V
g, b, d, f: V_7	$2V_7$
g, b, d, f, a♭: V_{-9}	$2V_{-9}$
b, d, f: VII	2VII
b, d, f, a♭: VII_{7^0}	$2VII_{7^0}$
b, d♭, f: It. 6th of IV	It. 6th
b, d♭, f, a♭: G. 6th of IV	G. 6th
g, b, d♭, f: Fr. 6th of IV	Fr. 6th
g♭, b♭, d♭: Neap. 6th of IV	Neap. 6th

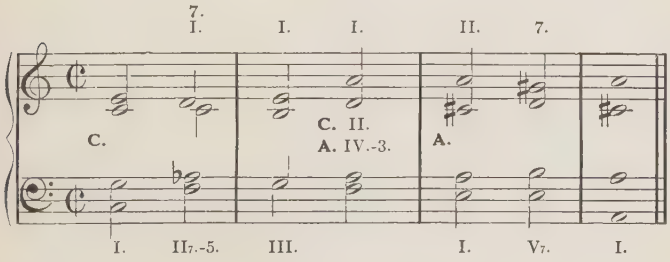
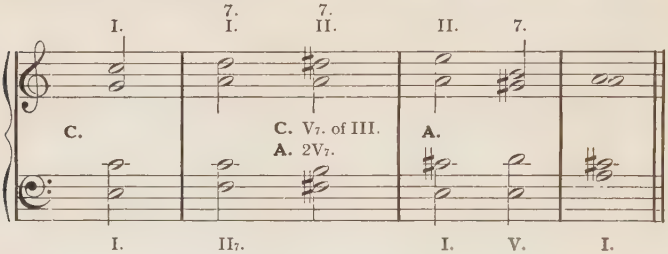


Lesson XXIX

Modulation to the Major Submediant Key

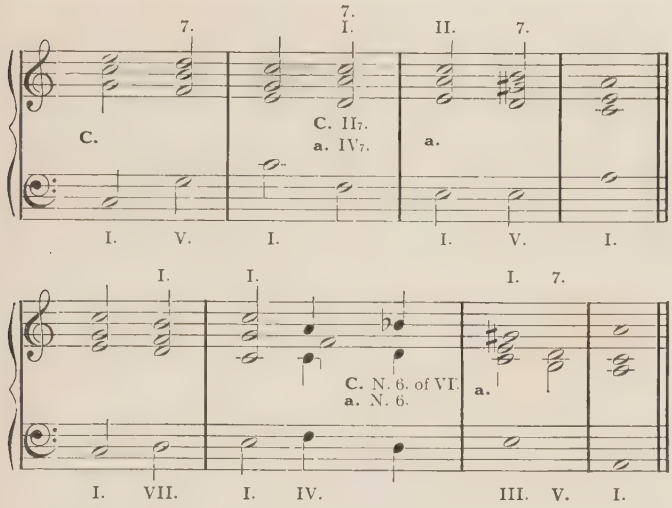
C Major to A Major

d, f♯, a: 2V	IV
d, f♯, a, c♯: $2V_{7+7}$	IV_7
b, d, f♯: III of V	II
b, d, f♯, a: III_7 of V	II_7
d, f, a: II	IV—3
d, f, a, c♯: II_{7+7}	IV_{7-3}
b, d, f: VII	II—5
b, d, f, a: VII_7	II_{7-5}

d, f, a, c: II_7	IV^{-3}_{-7}
d, f♯, a, c: $2V_7$	IV_{-7}
f♯, a, c♯: IV^{+I}_{+5}	VI
f, a, c: IV	VI^{-I}_{-5} or Neap. 6th of V
b♯, d, f♯: VII^{+I}_{+5}	It. 6th of VI
b♯, d, f♯, a: $VII_{7\,+5}^{+I}$	G. 6th of VI
g♯, b♯, d, f♯: $V_{7\,+3\,+7}^{+I}$	Fr. 6th of VI
g♯, b, d, f: VII_{7^0} of VI	VII_{7^0}
b, d♯, f♯: V of III	2V
b, d♯, f♯, a: V_7 of III	$2V_7$
b, d♯, f♯, a, c♯: V_9 of III	$2V_9$
b, d♯, f♯, a, c: V_{-9} of III	$2V_{-9}$
d♯, f♯, a: VII of III	2VII
d♯, f♯, a, c♯: VII_7 of III	$2VII_7$
d♯, f♯, a, c: VII_{7^0} of III	$2VII_{7^0}$
d♯, f, a: It. 6th of VI	It. 6th
d♯, f, a, c: G. 6th of VI	G. 6th
b, d♯, f, a: Fr. 6th of VI	Fr. 6th
b♭, d, f: N. 6th of VI	Neap. 6th



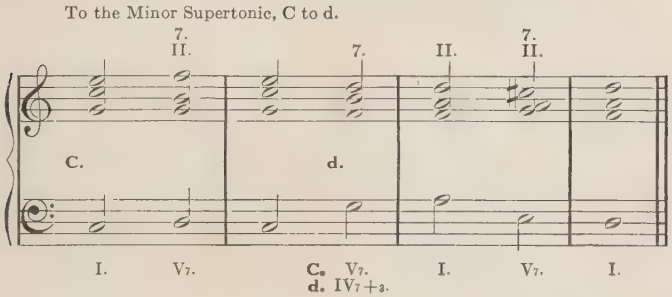
MODULATION TO THE MINOR SUBMEDIANT KEY

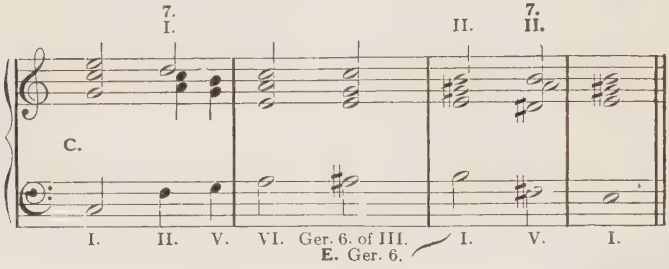
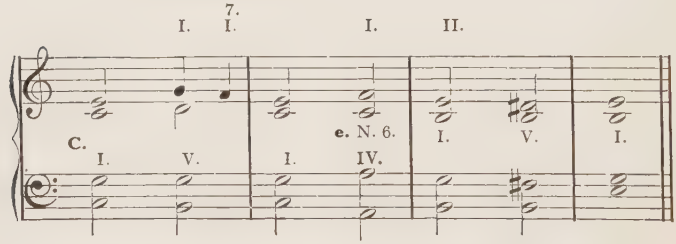
C Major to a minor

d, f, a: II	IV
d, f, a, c: II_7	IV_7
b, d, f: VII	II
b, d, f, a: VII_7	II_7
d, f♯, a: 2V	IV+3
b, d, f♯: III of V	II+5
b, d, f♯, a: III_7 of V	II_{7+5}
f, a, c: IV	VI
f, a, c, e: IV_7	VI_7
g♯, b, d, f: VII_{7^0} of VI	VII_{7^0}
b, d♯, f♯: V of III	2V
b, d♯, f♯, a: V_7 of III	$2V_7$
b, d♯, f♯, a, c: V_9 of III	$2V_9$
d♯, f♯, a: VII of III	2VII
d♯, f♯, a, c: VII_{7^0} of III	$2VII_{7^0}$
d♯, f, a: It. 6th of VI	It. 6th
d♯, f, a, c: G. 6th of VI	G. 6th
b, d♯, f, a: Fr. 6th of VI	Fr. 6th
b♭, d, f: Neap. 6th of VI	Neap. 6th

Lesson XXX

Modulation to the Minor Supertonic Key, the Major and Minor Mediant Keys

At this point the student should form his own tables of subdominant chords which will lead him to the desired keys.



To the Major Mediant, C to E.

To the Minor Mediant, C to e.

The student should practice these modulations in various keys. He will find, after a certain amount of experience, which of the subdominant formations are best suited for modulatory purposes and he should not be surprised if all the subdominant chords do not work smoothly and effectively. They all should work, but some will be much more satisfactory than others.

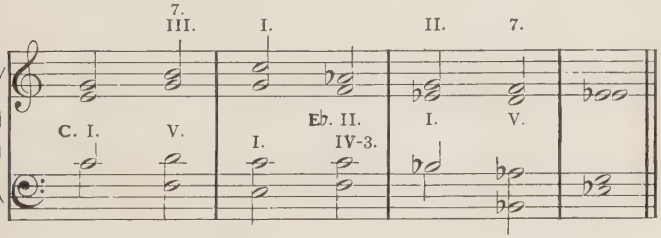
Lesson XXXI

Modulation to the Flatted Mediant and the Flatted Submediant in Major

C Major to E♭ Major

a♭, c, e♭: VI^{-I}_{-5} IV

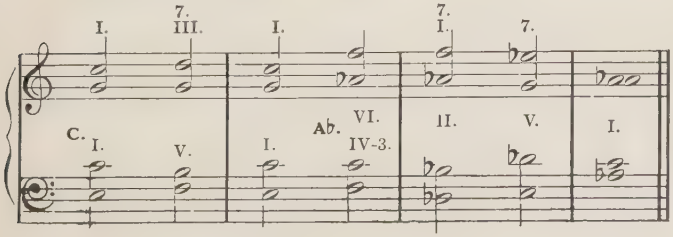
f, a♭, c: IV—3 II, etc.

To the Flatted Mediant, C to E♭.

C Major to A♭ Major

d♭, f, a♭: N. 6 IV

b♭, d♭, f: VII^{-I}_{-3} II, etc.

To the Flatted Submediant, C to A♭.



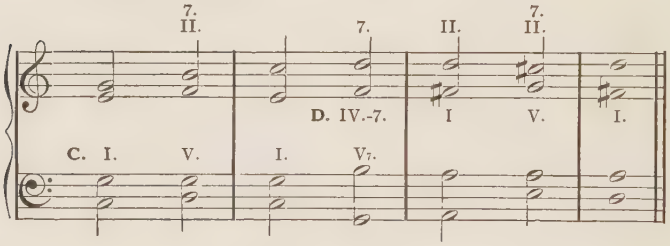
Lesson XXXII

Modulation to the Major Supertonic and the Subtonic Keys

C Major to D Major

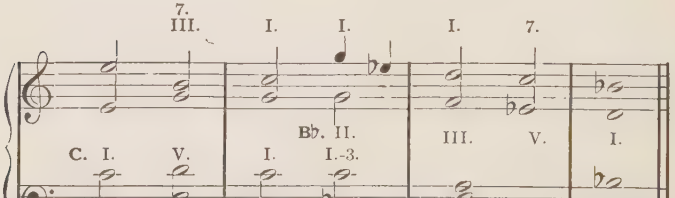
g, b, d: V — IV

e, g, b: III — II, etc.

To the Major Supertonic. C to D.

C Major to B♭ Major

e♭, g, b♭: III$^{\text{I}}_{5}$ — IV, etc.

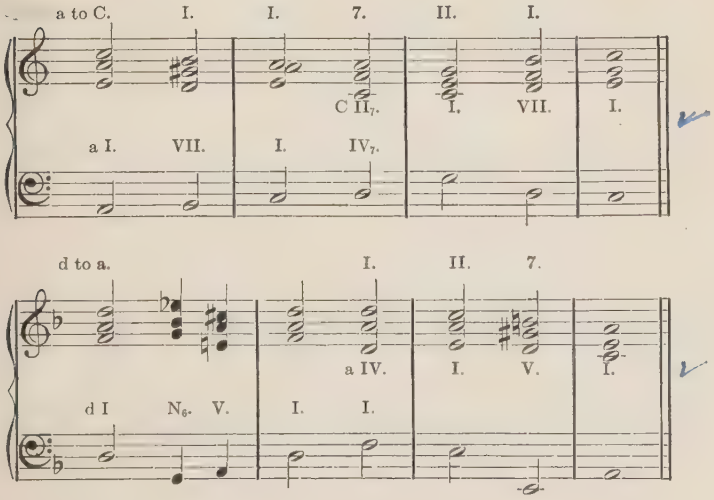
To the Major Subtonic. C to B♭.

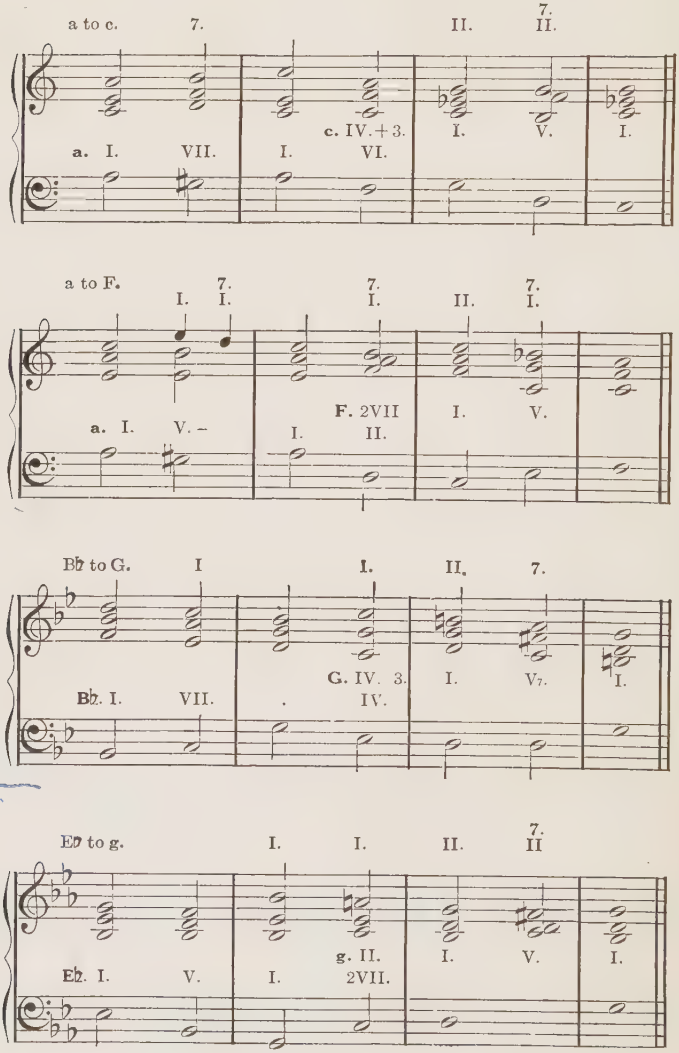


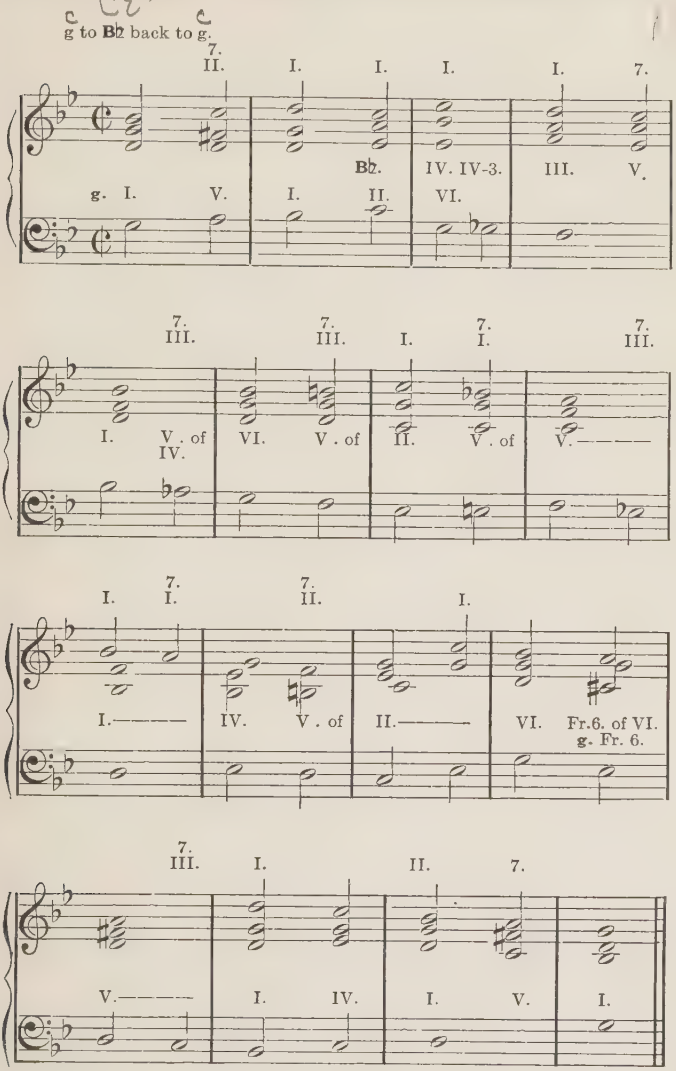
Lesson XXXIII

Modulation—Continued

The preceding lessons all contained modulations from a given major key to the keys of the first and second relationship. These modulations are all more or less commonly used in composition but other modulations are also necessary, such as from a minor key to a major key or from a minor to another minor key. The return to the original tonic key after a modulation is also necessary. The process of getting from one key to another nearly related key will always be the same, *i.e.*, through a subdominant formation of the new key. A few illustrations are given.



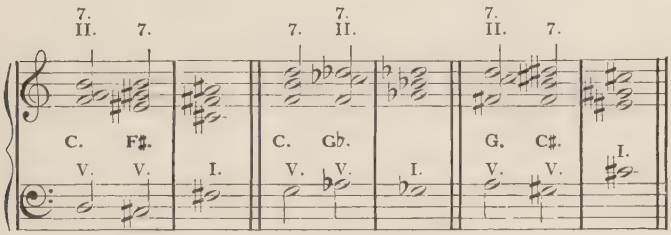
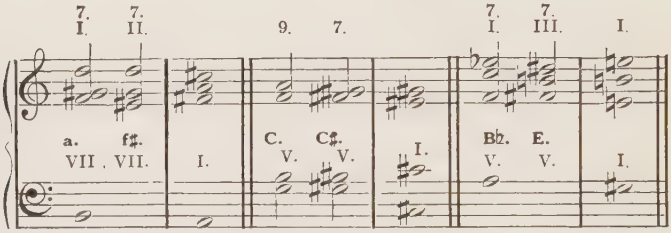

a to c.
7.
II.
7.
II.
c. IV.+3.
a. I.
VII.
I.
VI.
I.
V.
I.
a to F.
I.
7.
I.
7.
I.
II.
7.
I.
F. 2VII
a. I.
V. –
I.
II.
I.
V.
B♭ to G.
I
I.
II.
7.
G. IV. 3.
B♭. I.
VII.
IV.
I.
V7.
I.
E♭ to g.
I.
I.
II.
7.
II
g. II.
E♭. I.
V.
I.
2VII.
I.
V.
I.


g to B♭ back to g.
7.
II.
I.
I.
I.
I.
7.
B♭.
g. I.
V.
I.
II.
IV. IV-3.
VI.
III.
V.
7.
III.
7.
III.
I.
7.
I.
7.
III.
I.
V. of IV.
VI.
V. of
II.
V. of
V.
I.
7.
I.
7.
II.
I.
I.
IV.
V. of
II.
VI.
Fr.6. of VI.
g. Fr. 6.
7.
III.
I.
II.
7.
V.
I.
IV.
I.
V.
I.

Extraneous Modulations

Modulation by means of a chord common to both keys is practical where the tonalities are near enough to make this medium possible. But in modulating to distant keys such as C to F♯, C to f♯, C to g♭, C to G♭, C to g♯, C to G♯, etc., other means of modulation must be employed. The commonest procedure is to move from a dominant formation in one key directly into a dominant formation of the desired key. Such a progression is called a Modulatory Cadence.

Modulatory Cadences:

V_7	of one key			to V_7	of new key			
V	"	"	"	"V	"	"	"	
V	"	"	"	"V_7	"	"	"	
V_7	"	"	"	"VII_7	"	"	"	
V_7	"	"	"	"VII_{7^o}	"	"	"	
VII_7	"	"	"	"VII_7	"	"	"	
VII_7	"	"	"	"VII_{7^o}	"	"	"	
V_7	"	"	"	"VII	"	"	"	
V_7	"	"	"	"V_9	"	"	"	
V_9	"	"	"	"V_9	"	"	"	
VII_{7^o}	"	"	"	"VII_{7^o}	"	"	"	
VII_{7^o}	"	"	"	"V_7	"	"	"	
VII_{7^o}	"	"	"	"V_9	"	"	"	
VII_{7^o}	"	"	"	"V	"	"	"	
V_9	"	"	"	"V_7	"	"	"	
V	"	"	"	"III^1	"	"	"	etc.

It will be discovered in these modulatory cadences that there is usually a common tone or two between the seventh chords and these should, when possible, be kept in common. By common tone is meant not alone two notes on the same scale degree, but also two enharmonic notes or two chromatic notes. In the first illustration above there are two common tones, b and b, as well as f and e♯. In the second example there are three common tones, as there also are in the third illustration. The more common tones there are in such progressions, the smoother is the progression. It seems unnecessary to mention again the fact that the seventh of a V_7 or VII_7^0 should be carefully considered and that it should move down a whole or a half step, tie, or move up one half step chromatically. Occasionally there will be no common tone between two seventh chords, and in such a case the use of contrary motion is advised.

The student should write many of these progressions, choosing a great variety of keys. He will also realize through experimentation that this means of modulation will also hold good in progressions to the nearly related, as well as to the extraneous, keys. He should, after becoming thoroughly familiar with these cadences on paper, practice them slowly and carefully at the piano. Such practice will bring surprising results and enable him to move at will to any desired tonality.

Lesson XXXIV

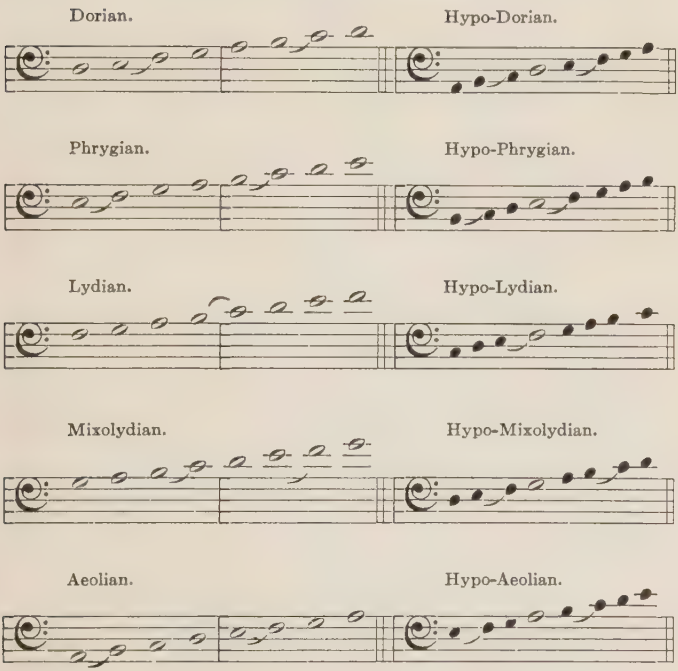
Various Scales

No text-book on harmony is complete without an allusion to the various scales employed by the serious composer. In listening to compositions one sometimes wonders at the modification of the diatonic scale in the direction of the old modal system. Or, again, one will be suddenly confronted by a scale composed entirely of whole tones, or by a scale that seems to be entirely new to the ear.

If one will imagine that a scale is a purely conventional thing, existing only as a means to an end, he will then realize that the introduction of one of the old modes, or of a whole-tone, or any other, scale is but a fancy of the composer.

The Modal System:

AUTHENTIC MODES



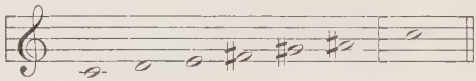
The Hypo-Lydian coincides with the diatonic major scale.

The Aeolian and the Hypo-Dorian are the same in notation.

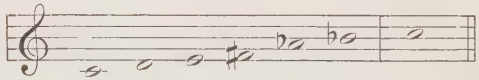
The Dorian and the Hypo-Mixolydian are also the same.

These modes, as will be noted, are entirely playable on the white keys of the piano, but are transposable and consequently may be used as a melodic influence or as a purely modal whole. They are most frequently used melodically with the harmonic scheme drawn from the regular scale. These modal influences are to be found in the works of the great composers from the time of Beethoven to the present day.

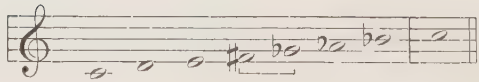
The Whole Tone Scale

There are but six notes in this scale:

These notes are productive of triads of the augmented fifth which are so frequently employed in the works of Debussy and other modern composers.

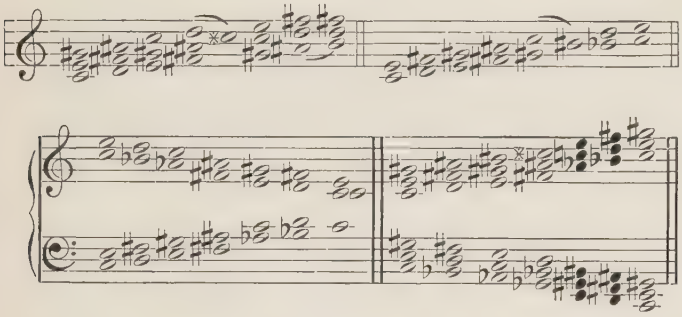
The scale may also be notated in the following manner:



Or:



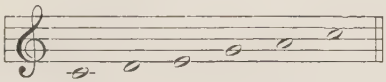
Melodically, this scale has been little used except in the portrayal of fantastic passages. Harmonically the scale is productive of but two augmented triads, the triad on the third root being the same as that on the first.



Such passages as the above are to be found in the works of Debussy and other modern composers, while a partial use of such formations, coupled with the harmonies of the diatonic scale, is a common occurrence.

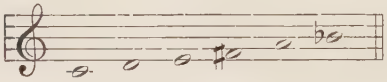
Other scales of which the student should have some general knowledge are:

(*a*) The pentatonic scale:



(*b*) The Hindoo scales, which are impossible of notation on our staff because of the quarter tones involved;

(*c*) The scales formed from harmonics as used by Scriabine:



and many others. F. Busoni, in a study on scales, describes one hundred possible scale formations. Other authors who have written extensively on the subject are: Lavignac, Woolet, Gevaert, Hull, and d'Indy.

Lesson XXXV

Suspensions

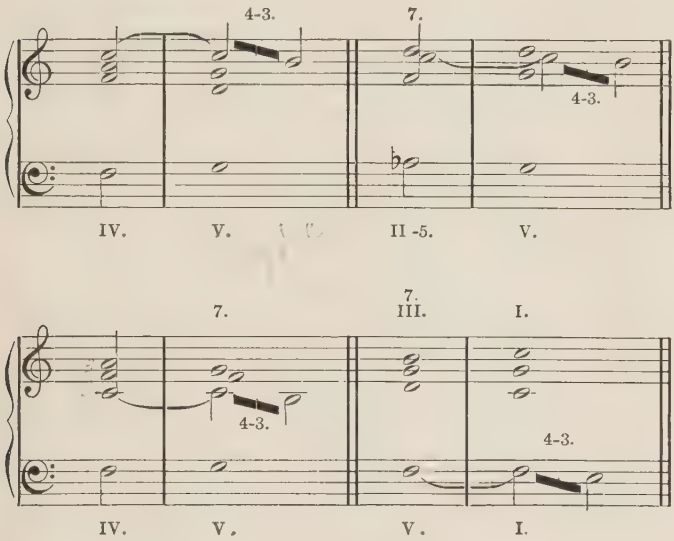
A suspension is an overlapping of a note of one chord, into a note a step or half step below in the next chord. If two notes overlap, a double suspension results; three notes overlapping, a triple suspension. This misplacing of the rhythm causes three considerations:

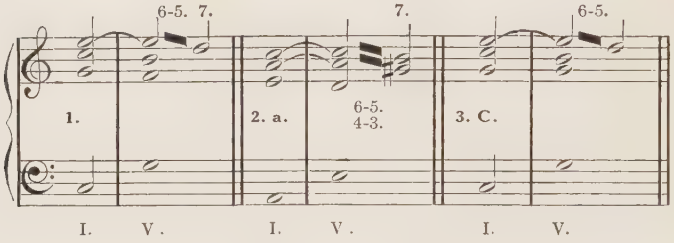
1. The preparation,
2. The suspension,
3. The resolution.

The preparation is the note of the chord which is about to overlap into the next formation.

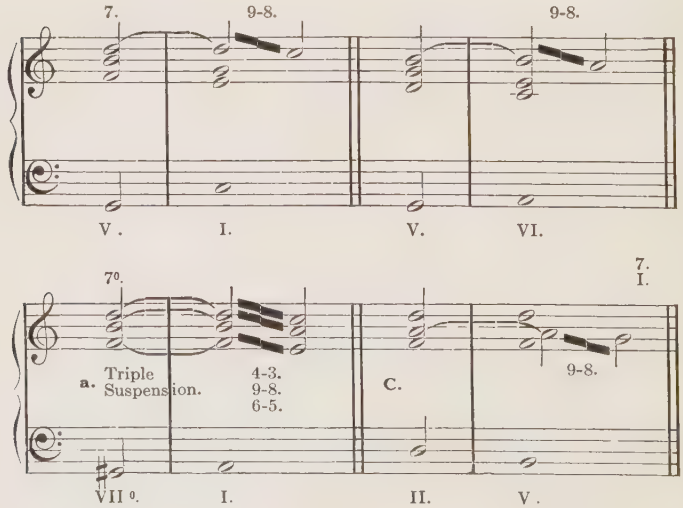
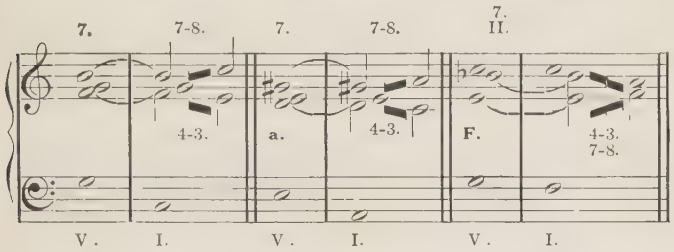
The suspension is the carrying over of this note, causing a dissonance in the next chord through delaying the note proper.

The resolution is the note proper, which is heard after the rest of the chord has been sounded.

Any note of a triad or seventh chord may be suspended. If the third of a chord is delayed by a tone above, emanating from the chord before, a 4-3 suspension results.

The suspension of 4-3 may occur in any voice, but the note of resolution should not be found in any other voice than that into which it is suspended.

When the fifth of a chord is delayed, the 6-5 suspension results. This is most effective with a seventh chord. Do not double the note of resolution.

In example (2) the double suspension is shown. In example (3) the effect of the 6-5 suspension showing the weakness of its use with the triad in contrast to that of the seventh chord in example (1).

The fifth should not be doubled, nor should suspension occur in bass.

When the root of a chord is delayed, a 9-8 suspension results. The note of resolution may be doubled, but only in the bass.

There is but one possible upward suspension, the delaying of the leading tone to the tonic: 7-8. This should be used in conjunction with a 4-3 suspension.

Suspensions do not mitigate parallel octaves or fifths, so that care must be exercised in their avoidance.

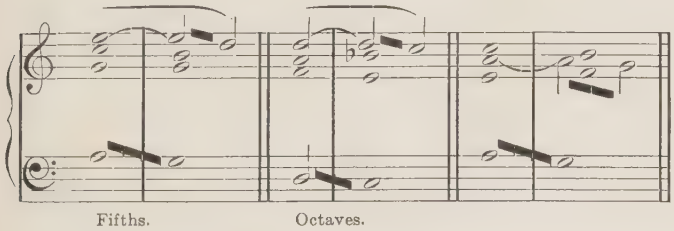
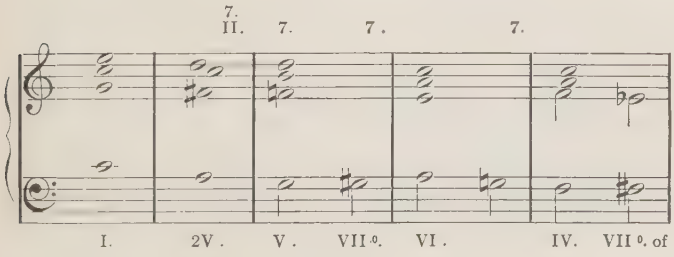
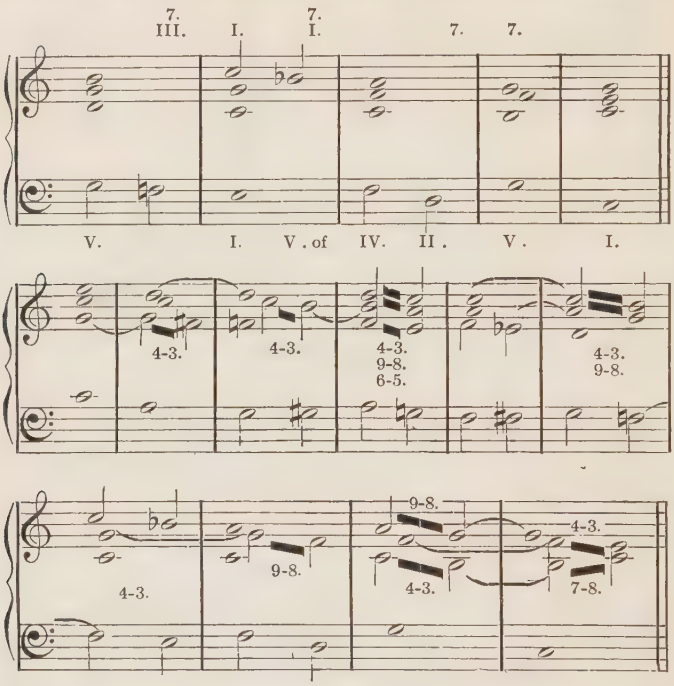
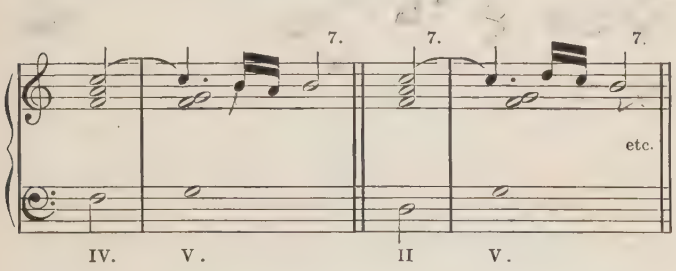



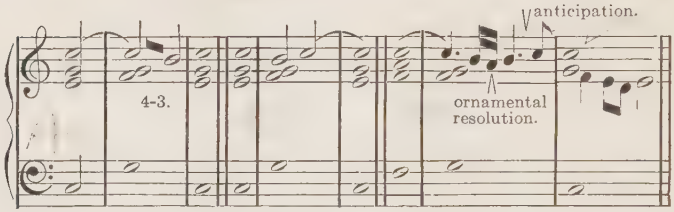
Illustration showing the formation of suspensions.

Chord-changing at the moment of resolution of a suspension is a common device for enriching the progression. It should be used with care and thought, as, when used awkwardly, it may produce an impression of incoherence. The figuring of the suspension should remain the same as the intention suggested. The resolution chord is usually one of the same quality as the intended chord except in the case of a transition or modulation.

See measures 2, 3, 5, and 6 of above illustration. Original work is required of the student.

Lesson XXXVI

The Ornamental Resolution to the Suspension and Anticipation

The ornamental resolution to the suspension is a small tone-group of eighth or sixteenth notes interpolated between the suspension and resolution notes. This tone-group is in the nature of a "turn" either upward or downward or in surrounded note form. It is purely ornamental as its name suggests and should not be considered as belonging in any way to the harmonies involved.

The anticipation is a sort of backward suspension; *i.e.*, it is the sounding of a note previous to the chord in which it actually belongs. One note or even an entire chord may be anticipated in the measure or chord before.



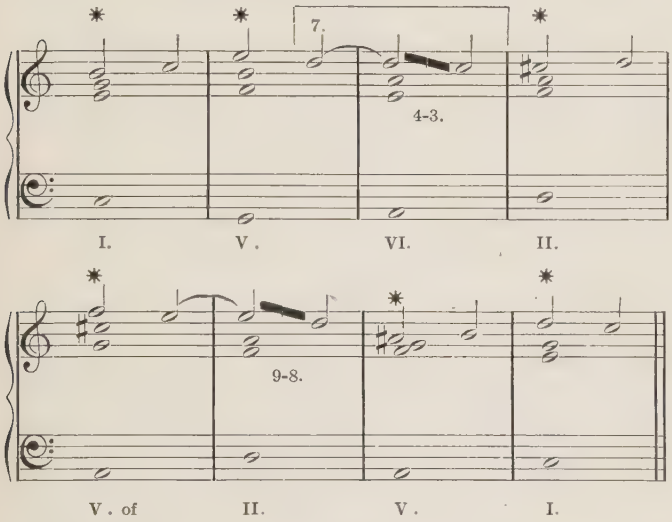
Suspensions. Same reversed making an anticipation.

Original work is required of the student as well as research work in the compositions of Bach and Beethoven. He should analyze the first volume of the Beethoven Sonatas with ease and surety at this point in his work, and from them should progress gradually to the works of the modern composers. His knowledge will depend entirely on the extent of his research in and study of what has been done by the well-known and accepted writers.

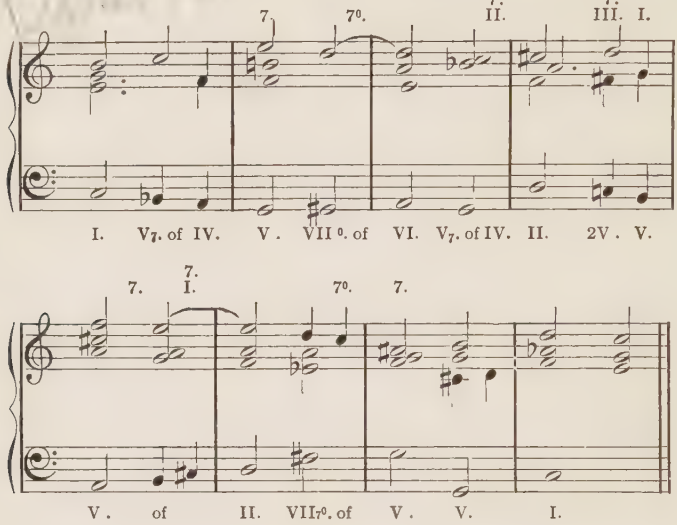
Lesson XXXVII

Appoggiaturas

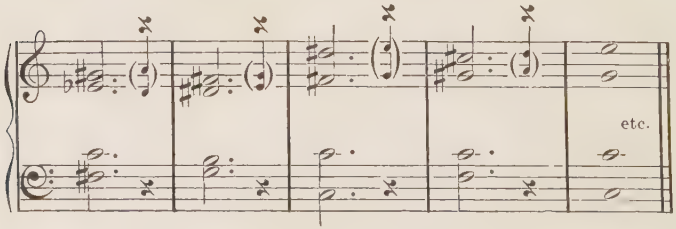
An appoggiatura is an unprepared suspension; *i.e.*, it is the delaying of a chord-note on the accent by a note either one-half or one whole step above or below it. This note, which is foreign to the chord, is usually of the same length as the chord note, but may be longer or shorter. The appoggiatura was formerly written as a grace note and the performer always gave it one half the time value of the note it pre-

ceded. It should always be written as it is intended to sound, for in these days of chord-changing and suppression of resolution, the old-fashioned method of notation will not meet the exigencies of its present day uses. The appoggiatura, like the suspension, may be single, double, or triple.

From the second half of measure 2 to the end of measure 3 is a suspension which is purposely used to show the difference between it and the appoggiatura.

The above appoggiaturas all resolve regularly, that is, **without chord-change,** at the moment of resolution. As with the suspension, the simultaneous chord-change with the resolution is frequently employed.



The same example, with possible chord-changes in resolution.

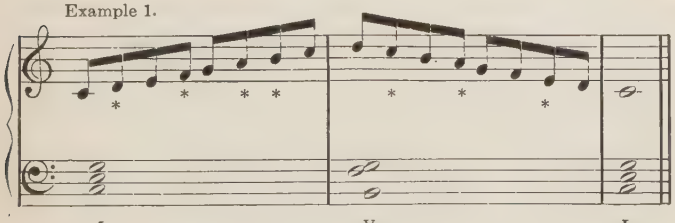
The suppression of the note of resolution in the appoggiatura requires in the student a sense of the æsthetic as well as a strong, flexible imagination which permits him to hear when there is nothing to hear. He must "feel" the note without the satisfaction of its resolution's being apparent.

Small notes indicate the unheard resolutions of the appoggiaturas. Such progressions are used for effect and atmosphere in descriptive music, or in some vague expression of emotion. The student is not advised to use the unresolved appoggiatura to any great extent. The use of it depends on the good taste of the individual, not on the fact that he may now break a rule at will. His self-expression should dictate, and not his knowledge.

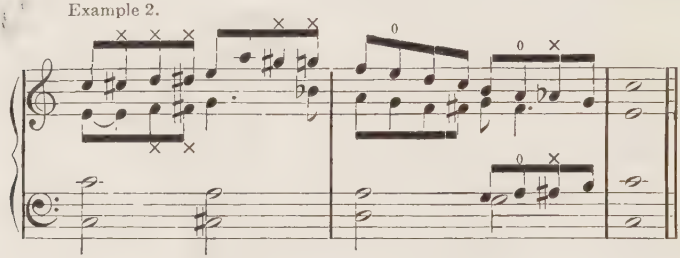
Original work.

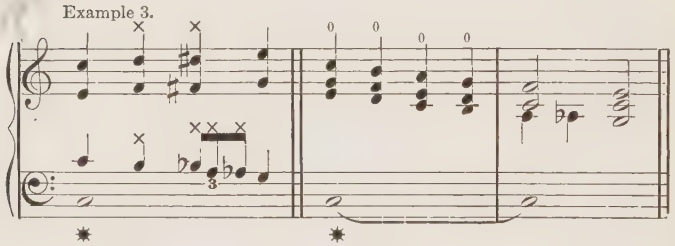
Lesson XXXVIII

Passing Notes. Passing Chords. Pedal Point

Passing notes are notes foreign to the chord which fill in between chord notes in a scale passage. They may be either diatonic or chromatic, their duty being to move between points of the chord.

Example 1.

* Diatonic passing notes.

Example 2.

✱ Chromatic passing notes both double and single.
o Diatonic passing notes in similar and contrary motion.

Example 3.

✱ Passing chords in contrary motion.
o Passing chords in similar motion. ✱ Pedal point.

In example 1 the simple diatonic passing note is illustrated. These are commonly met with in scale passages. It should be noted that the first and last notes in each measure are harmonic. This may not always hold good in these days of freedom of musical speech, but in any case a connection between measures or chords is necessary. By this is meant that coherence of melodic line with a firm underpinning of harmonies is desirable whether or not the first and last notes of the measure are harmonious.

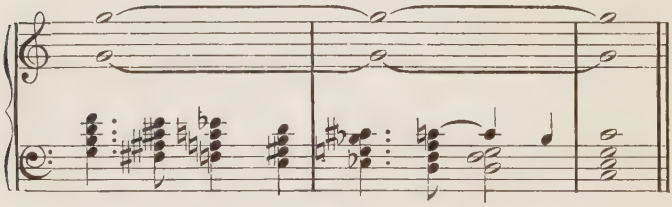
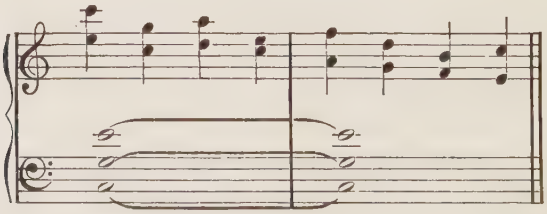
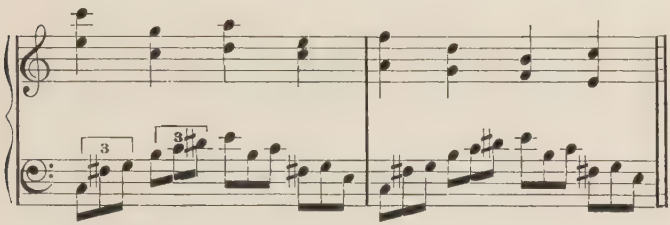
Example 2 illustrates the double chromatic passing notes both in similar and contrary motion, as well as the double diatonic passing notes in both motions.

Example 3 contains passing chords (triple passing notes) both in similar and contrary motion. Such progressions require a stationary bass, which is called a pedal or organ point.

The Pedal Point is usually the dominant or tonic, sometimes both, in which case it is called a double Pedal Point. An inverted Pedal Point is one in which the sustained note is found in one of the upper voices. By sustained note is not alone meant a tone that actually is sounded through a measure or several measures without break, but also a note that reiterates itself through repetition or is sounded at intervals through a given space. The first and last chords of the Pedal Point should be harmonious. Between these chords vivid diatonic and chromatic harmonies may be piled in the nature of passing chords, surrounding chords, escaped chords, etc., according to the imagination of the composer.

Sometimes a complete chord will be found sustained in the lower voices, especially in orchestral compositions. These are called pedal-chords and are productive of very interesting effects. If this pedal-chord is broken into a tracery, or combination of the same notes, a pedal-figure results. This further enhances the effect and is frequently used, especially in compositions where bell tones are required, or in

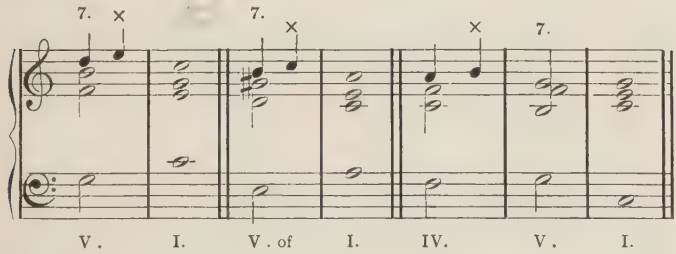
which a figure in the lower voices of the orchestra continues throughout a composition.

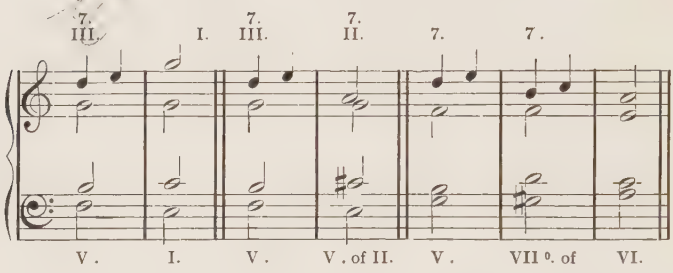
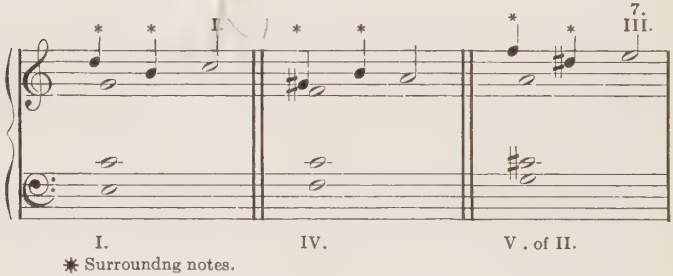
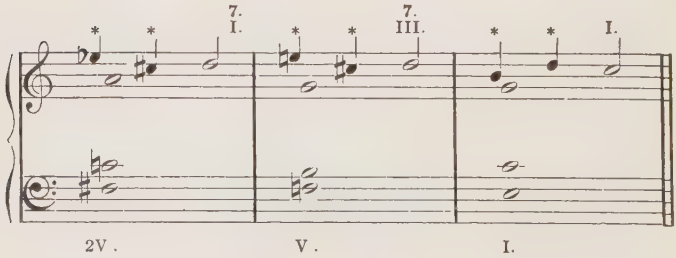
The student should do a great deal of research work, especially in the compositions of the modern writers such as Strauss, Wolf-Ferrari, Balakireff, Scott, Järnefelt, Schönberg, Ravel, Debussy, etc. He, by no means, should omit the analysis of the classical composers, for through his study of these he will comprehend more fully the growth and development of the many new treatments of the points in question.

Inverted Pedal Point. Succession of chromatic sevenths in similar motion. Note the perfect fifths which are not infrequently found in the modern idiom.

Pedal chord.

Pedal figure.

Lesson XXXIX

Changing Notes, Surrounding Notes

The changing note is a tone used in conjunction with a chord note either a half or whole step above. It finds place most frequently with the fifth of the V or V_7 chords, but may be used freely with other formations as well as other tones than the fifth of the chord.

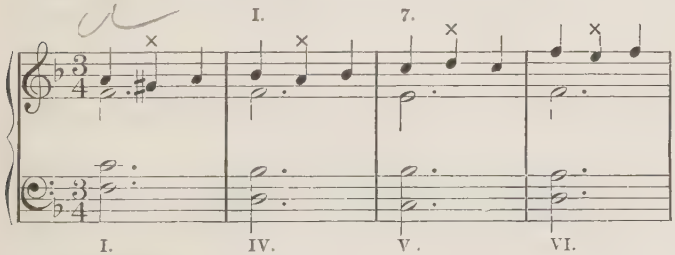


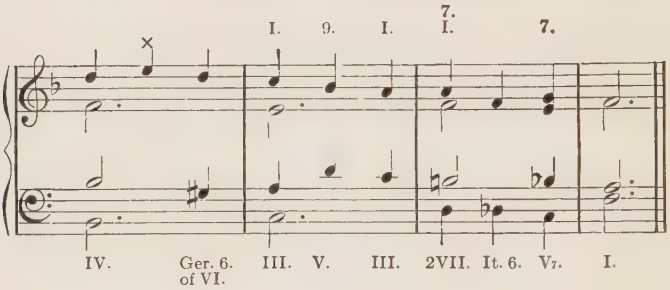
The changing note usually skips down a third in progressing, but this is not binding, although natural. It may skip up or down to any tone, provided good taste and common sense are used.

Surrounding notes are tones foreign to the chord which delay the chord note from both above and below, or vice versa. They may be either a half or a whole step above, but are usually but a half step below.

✱ Surroundng notes.

The note of resolution may be in another voice in the progression involving the root of the chord; but when the third or fifth are being surrounded, it is best to avoid the doubling of these factors.

Original as well as research work is required of the student.

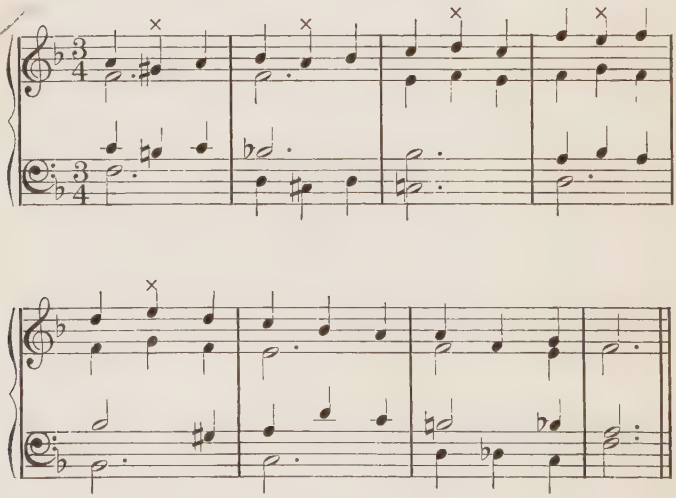
Lesson XL

The Auxiliary Note

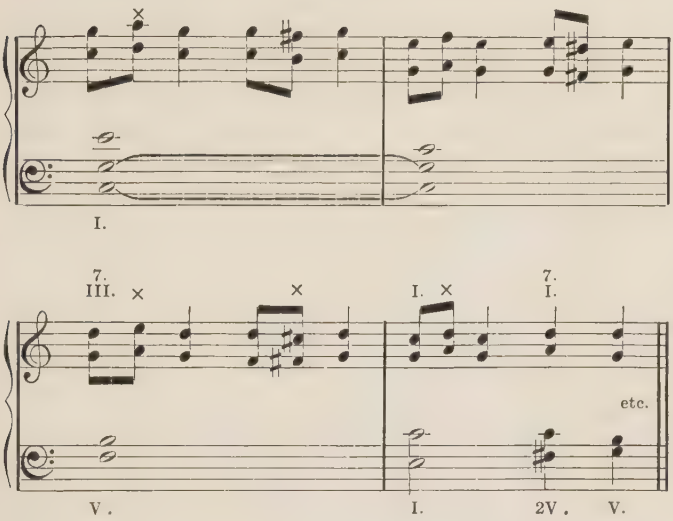
Next to the passing note, the auxiliary note is the commonest device of ornamentation. While the passing note moves onward in the established direction, the auxiliary note immediately returns to the chord note from either a half or whole step above or below. Double auxiliary notes in thirds or sixths as well as auxiliary chords (three notes) often find place in the ornamentation scheme. These embroiderings of foreign notes to the chord are sometimes used in fourths or fifths to give a desired effect. The possible uses of the auxiliary note cannot be undertaken in this small chapter, but a suggestion or two will give an inkling of its further development.

× Auxiliary.



Further embellishment of the same exercise by the use of double auxiliaries, and an auxiliary chord.



A still further development is possible but impracitcable, as too much ornamentation is worse than none.



Auxiliaries in fifths and fourths, as an embellishment, are never considered harmonically; but the above example will serve to illustrate the auxiliary fifths and fourths properly employed. These may sound harsh, according to the temperament of the listener, but such progressions, and even more dissonant and disturbing effects, are beginning to seem very tame and commonplace to the modern composer.

All great musical innovators, from the time of Mozart up to the present day, have been accused of harmonic complication; and yet out of it all, through the softening by time, through unprejudiced listening and familiarity, melody has extricated itself from the seemingly chaotic ramblings of the pioneers.

Mozart was accused of lack of melody in spite of the simplicity of his harmonic scheme. Think of the hatred and fury that the music of Schumann, Wagner and Debussy engendered in the minds of the contemporary composers of their days! Yet, to-day, their efforts are tame compared to the still further development and experimentation of such men as Stravinsky, Scott, Schönberg, Reger, and Delius.

It would seem that some new system must eventually evolve from the tendencies of the present day, that a new technique is required for fulfillment of expression. Will this be formulated through a medium of new instruments capable of third or quarter tones in pure temperament; through an evolution in the present indelible series of harmonic partials; or through an entire overthrow of all traditions up to the present?

That a new musical art is in the conception is manifest in the labor-pains of the music of the present. Who knows what the delivery will be? But whatever it is, we will still feel the need and the power of the old treatise on harmony, and no growth —no matter how radical—will be complete without it.

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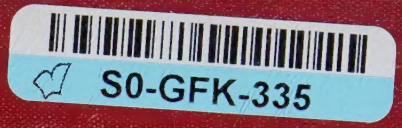
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